

# sputnik

MONTHLY DIGEST

January 1969

3/6



*Yuri Gagarin's last day—by his widow*  
*Marriage and divorce in the USSR*  
*Why people move to Siberia*  
*The Siege of Leningrad*



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New stories by these 20 distinguished writers appeared with many more in ARGOSY last year. And 1969 will be another year for a big crop of big-name contributors starting with John le Carré, Gerald Kersh and Alec Waugh in the January issue.

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# LETTERS TO THE EDITOR

The Editors of Sputnik welcome letters from readers all over the world. Your comments, criticisms and suggestions will be considered seriously. A selection of your letters appears each month. Please address your letters to: *Sputnik, English Edition, 2 Pushkin Square, Moscow, USSR*

## Dialogue between historians

In the article "Dialogue Between Historians", in the August issue of *SPUTNIK*, Dr. Alexander Mangait is quick to dismiss historian Arnold Toynbee's support of a voluntarily-created federal world government as "questionable and unrealistic", inasmuch as he did not choose to defend this characterisation. Dr. Mangait left me, and other young world government supporters like me, unabashedly curious as to why he thinks this way.

J. Chrys Dougherty, Austin, Texas, USA

## The Kuriles Islands

I enjoyed your article about the Kuriles Islands in the September issue, 1968 ("The Islands of a Hundred Volcanoes"). As a person greatly interested in geography I found this a very interesting and enlightening picture of this Pacific area of the Soviet Union.

John Brady, Lurgan, Northern Ireland

## Russian Made Easy

I have been a reader of your informative magazine since its inception. I have followed with interest the Russian lessons, and I think they are as easy a presentation of the language as could be wished for. I hope that you are not thinking of chopping and changing the lessons—at least not until the present series is concluded. However, in the interest of readers looking only for the "tourist's phrase book" perhaps you could run an appendix to the lessons. Personally I don't think it necessary.

Patrik White, Londonderry, Northern Ireland

## Dr. Krasov

I often had "the opportunity to find great

usefulness in what is published in this splendid magazine.

An article about Dr. Leonid Krasov published in the November issue, 1967, has been of particular interest to me because of a similar accident in my family.

Bruce Pflanz, La Jolla, California, USA

## Dymkovo whistle-toys

We are enthralled by the article in the August, 1968, edition of your magazine, "Whistles in Colour", about the Dymkovo toys.

P. Rudd, for Pollock's Toy Museum, London, England

I was very much interested in the Dymkovo toys. It was a real pleasure to see their bright and very gay colours.

Tamara Mischeva, Sofia, Bulgaria

## Comments and Suggestions

Could we possibly have a regular colour feature on your films and film actors?

I would also be interested to see a feature on restaurants in Moscow and Leningrad. I find your recipes really satisfying.

As I am an avid reader, some of your readers in other countries might like to send me any used magazines in English.

T. Langlands, Radio Station, Lithgow, Australia

I would like to suggest that you have a column in every issue of *SPUTNIK* dedicated to the great Russian painters.

More articles on Soviet students would also be appreciated.

Zlatko Veselin Pavlov, s. Zlatovo, Trigravitski District, Bulgaria

See the article on Ilya Repin, starting on P.164 this month.

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## LETTERS TO THE EDITOR

*I have been reading your magazine for a long while and I find it quite interesting. It shows the world that Russia is not a cold, bleak and uninteresting country, but a land of warmth, intelligence and beauty. I long to see it and speak to your wonderful people. I find your language most musical.*

*Andrea Jacqueline Bullock,  
Birmingham, England*

*I eagerly wait for every forthcoming issue of your magazine and always read it at one gulp. To my mind the people saying nasty things about this publication are sceptics who see all the world in a gloomy light. I am really sorry for their limited horizon.*

*Irena Bakovska, Warsaw, Poland*

### Pen-friends wanted

*I would like to have pen-friends all over the world. I am 18 and my hobbies include classical music and stamp-collecting. I speak only English.*

*Richard Hyland, 3 Magdalen Lane, Chirchcotech, Hampshire, England*

*I am 30 years old and I know only English. My hobbies are sports, reading and history.*

*Klen Mylin, 170 A Block, Mendaleay, Burma*

*I want to get pen-friends from different countries, especially from Denmark, Sweden, Finland and Holland. I am 16 years old and am a schoolgirl. I can correspond in Russian, Bulgarian, English and German. I am eager to receive many, many letters.*

*Tolyn Radomirska, 1 Rejzinska Street,  
Sofia 63, Bulgaria*

*I would like to have pen-friends. I am 19 and my hobbies are literature, travel, painting, archaeology. I can write in Dutch, German and English.*

*U. van Dyk, 13 Messinge, Zuidlaren (Dr.), Holland*

*I would greatly appreciate if you could print my address in your issues to enable me to get pen-friends. My hobbies are stamp-collecting, view-cards and correspondence.*

*Hassan Mohammad, Central Post Office,  
North Gate, Baghdad, Iraq*

*I want to get pen-pals in France and England. I collect stamps and records. I am fond of music, reading and painting. I know Russian and English. My age is 20.*

*Rošika G. Popova, ul. "Vozne" 35, Plodiv,  
Bulgaria*

*I am a girl of 22 who wishes to make new acquaintances via the mail. I enjoy stamp-collecting, good music and writing letters. I speak only English.*

*Patricia Dunajfield, 21-39 74th Street, Jackson  
Heights, New York 11370, USA*

*I am keen to have pen-pals in every country. I am 21 and training to be an electrical engineer. My interests are stamps and first-day covers. I can correspond in English only.*

*Gauzar Uddin Usmani, Qr.No.30/F, Unit No.8,  
Lafjabad, Hyderabad, West Pakistan*

*Being one of your ardent readers, I would be very glad to have my address printed in your magazine, for I want to make new friends.*

*Waldemiro Medeiros, 152 Rua Prof. Raimundo  
Nogueira, Cruz das Armas, Jolo Pessoa,  
Paraná, Brazil*

*I would like to have friends all over the world. I am an Indian student, 21 years old. My main interests are English, literature, films, sports and radio.*

*Harendra Kumar Mehra, 10 Jashid Mallik Road  
(Malpuda), Calcutta 6, West Bengal, India*

*I am 20 years old. My hobbies are foreign languages, literature, organ music and travel. I know Russian, English and German. I wish to correspond with young people of the whole world.*

*Tamela Kryszyna, ul. Prępkowa 62/2, Cieszyn,  
woj. Katowice, Polska*

*I am 16 years old, I know English and French and a little Welsh. My hobbies are swimming, cycling, pop music, reading horror stories and stamp-collecting. I will answer all the letters.*

*Ruth Phillips, Gwentzied, Legin, Wiltshire,  
Cerne, S. Wales, Great Britain*

## LETTERS TO THE EDITOR

*I would like pen-friends in England, India, Switzerland, USA, Australia, Ireland and Canada. My age is 25, bachelor—deaf, with lip-reading, not dumb or stgn. I can speak only English. My hobbies are swimming, golf, tennis, Akorg, cycling, billiards, reading, art and basket-ball.*

*Denis Fitzpatrick, Oakville House,  
Charlestown, Co. Cork, Ireland*

*I would like to have pen-friends. I am collecting view-cards and coins. I can write in Russian and in English.*

*Roman Stojko, 8 ul. Zjednoczenia,  
Wryz, woj. Katowice, Polska*

*I am writing to you for pen-friends from Poland, Canada and USA with similar names to mine for "family tree" research. I will write to people of any age. I am 19 and my hobbies are travel, postcards, history, etc. I intend to travel to Germany and Poland in 1970.*

*A. Wlaskowski, Academy Book Club,  
901 Gordon Road, Hastings, North Island,  
New Zealand*

*I would like to have pen-friends from all over the world. I am 17 years old. My interests are collecting foreign papers, stamps and writing letters to pen-pals. I can write in English.*

*J. Mubina Deen,  
644 Marudanda Weid, Metala, Ceylon*

*I came to Denmark a year and a half ago. I am quite interested in Buddhism and would really like to exchange letters with a person in India or Nepal (speaking English) who has some experience and insight in this seemingly wise and tolerant belief.*

*Allis Djernad, c/o K. Rasmussen,  
Svanemøsegårds 24 IV, 1967 København,  
Denmark*

*I am a student. I can write English, French and German and my interests include Rugby leagues, reading and philosophy. I would like pen-friends from anywhere.*

*Keny McGovern, "Star of the Sea", Southport,  
4215, Queensland, Australia*

*I am 18 years old. My main interests are photography, music, reading and sports. I collect view-cards and badges. I can correspond in English, Russian and Bulgarian.*

*Nikolay Kardon, ul. "Pann Gzozdena" 78,  
Sofia, Bulgaria*

*I study English and German and would like to correspond with young people of Great Britain, the German Democratic Republic and other countries. I am 18 years old and a student at a Polytechnical Institute. I am very much interested in the life and hobbies of the young people of foreign countries.*

*Ewa Wobarska, ul. Pawliczka 9c,  
Zabrze, Polska*

*I would like to have pen-friends all over the world. I am 23 and an engineer. My main interests are English literature, films, swimming, radio, travel.*

*Sharad Apte, Koppikar Road,  
Habit-20, Mysore State, India*

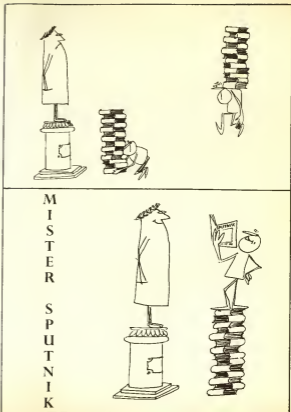
*I am interested in ways of life in different countries of the world and I am collecting badges of industrial plants. I can correspond in Russian, English and German.*

*Josef Ferenec,  
13 Stárove, Sals, CSSR*

*I would like to have pen-friends all over the world. I am 14 years old. My hobbies are stamps, coins and view-cards. I know Bulgarian, Russian and a little English and Spanish.*

*Nikolay G. Kater, 66 Blvd "Br. Bakasov",  
Block I, Vrb. Sofia, Bulgaria*

We very much regret that we are unable to publish the names and addresses of all the hundreds of people who write seeking pen-friends. Because of lack of space we now have to limit this service to SPUTNIK SUBSCRIBERS—Editor





*These seventeenth-century engravings give an idea of the world reputation won by Ulug-beg, the great fifteenth-century scholar and astronomer. Grandson of Tamerlane the Great, he was ruler of Samarkand, Central Asia.*



*In the first he sits at the right hand of the goddess Aphrodite Urenie (heavenly Aphrodite) among the world's leading astronomers. In the other he is also in the intimate circle of the goddess, third from extreme left.*

## THE SAGE OF SAMARKAND

Renaissance engravings always depicted Ulug-beg, the great fifteenth-century scholar of Samarkand, sitting to the right of an allegorical figure of Science, or else in company with the world's learned men. Ulug-beg was world-renowned for the accuracy of his astronomical

calculations and the exactness of his observations.

But when in 1908 the Russian archaeologist, Vassili Vyatkin, decided to excavate at the site of Ulug-beg's famous observatory in Samarkand, nobody could tell him its exact location.

*From VOKRUG SVETA (Around the World)*

On the seventh of Ramadan, in the year 853 of Khijra (October 24, 1449), Ulug-beg, ruler of Samarkand, grandson of Tamerlane the Great, rode up to his palace, dismounted and humbly walked to the gates, where he stopped, his head bent low: he had abandoned resistance to his son, Abdul-Latif.

Ulug-beg was unlike the other rulers of Samarkand, one of the most ancient cities in Central Asia. He was not interested in military conquests. He avoided the company of smooth-tongued courtiers. Instead he cultivated the friendship of those who, like himself, observed the movement of the stars across the heavens. He was learned. And instead of the Koran, his disciples studied the works of ancient philosophers and investigated the natural sciences.

The Moslem sheikhs never forgave Ulug-beg for his words, "Religions vanish into smoke, kingdoms fall, only science remains for ever." The sheikhs incited his son, Abdul-Latif, to revolt.

And now Ulug-beg stood on trial before the triumphant, leering sheikhs and listened as his son accused him of the sin of pride. Ulug-beg asked for one thing only: to be allowed to stay in Samarkand, where he could continue his studies and observations. But the court of sheikhs ruled that he must undertake a pilgrimage to Mecca to atone for his sins.

That night, when the weary, betrayed man was at last allowed to sleep, another council was held, a secret one this time. The sheikhs

decided that he must be killed.

In a few days, accompanied by only one retainer, Ulug-beg set out on his pilgrimage. At the first village outside Samarkand he was stopped, bound hand and foot, taken to an irrigation ditch and forced to his knees. The executioner raised his sword and with one terrible stroke sent the head of Ulug-beg rolling down into the ditch.

News of his death reached Samarkand within the hour.

The grim tidings filled Ali-Kushchi, Ulug-beg's closest friend and disciple, with grief and despair. He was also well aware that the murder meant the death sentence for all Ulug-beg's friends, his work and his books.

★ ★ ★

Over his chain-mail Ali-Kushchi slipped on a robe, hiding a dagger beneath his wide sash. Under cover of darkness his stallion carried him swiftly to where Ulug-beg's observatory stood on a hill overlooking the city.

The sheikhs had decided to destroy the observatory. The memory of the astronomer was to be obliterated from the face of the earth. Fanatical dervishes were the first to invade the building. They raved and howled like possessed beings, smashing instruments and defacing the decorations on the walls.

Battering-rams were brought from the city. The thick walls resisted the onslaught for a time, then caved in.

*The recently built entrance to Ulug-beg's observatory in Samarkand.*





That night the stars that Ulug-beg had delighted in observing shone on a heap of rubble.

The sheikhs were victorious. The hated man of science and the building dedicated to its pursuit were destroyed. But nobody knew that before the arrival of the dervishes, Ali-Kushchi had managed to save a mass of papers from the observatory and disappear with them into the night.

For a long, long time people were afraid even to approach the hill, which was reputed to be haunted by evil spirits.

Meanwhile, Ali-Kushchi had reached Constantinople and prepared his master's last work, *New Astronomical Tables*, for the printers. Soon after its publication, the book was reprinted in Cairo and Damascus. In the seventeenth century it was published in three editions in London, then in Paris, Florence and Geneva.

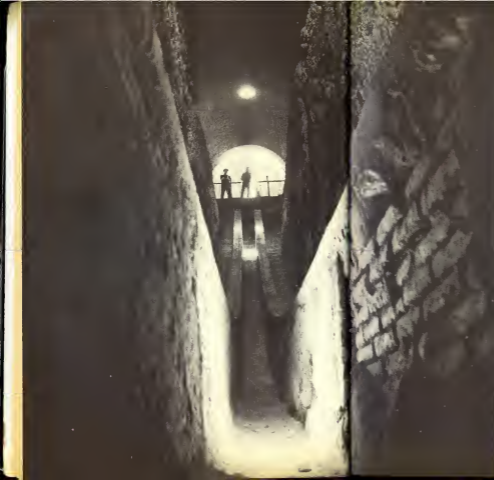
The exactness of the *Tables* was such that many scientists subsequently doubted their authenticity; it seemed incredible that such a work could have been produced in the fifteenth century, long before the invention of the telescope.

★ ★ ★

The book became known to educated circles throughout the world.

---

*The famous giant sextant constructed underground by the medieval astronomer to calculate the altitude of celestial bodies.*



Eventually, in the eighteenth century, Jai Singh II, the Maharajah of Jaipur, read a copy.

Jai Singh engaged in endless wars, but whenever a break occurred in the long chain of military campaigns he would forsake the military camp for one of his palaces in Jaipur or Delhi and plunge himself into a study of Ulug-beg's work.

The young Maharajah gathered around himself many renowned astronomers and mathematicians. Savants from all over India flocked to the lover of knowledge, and all who came were given food and a place to study.

In 1724, in Jaipur, Jai Singh began construction of his first observatory, which was later to be known as the eighth wonder of the world. The edifice of gleaming white marble and red sandstone was truly magnificent, with its narrow, black faced towers and steep stairways curving upwards into the dazzling tropical sky.

A fantastic device—spherical walls cut by an inclined stairway pointing exactly to the North Star—showed the local time. Other instruments made of stone were designed to check Ulug-beg's *Astronomical Tables*.

Jai Singh thought the astronomical instruments of his time were crude and inaccurate, too open to human error. Therefore he ordered the construction of immovable instruments, some of them 90 feet high, thinking that in this manner he could reduce the chances of a mistake in calculations.

The Maharajah used to emphasise

the fact that many of his instruments were exact replicas of those used by Ulug-beg, whom he considered his mentor.

Unfortunately, Jai Singh's observatory was built on shifting soil. The foundations sank and the instruments were put out of alignment. Today the building is just an historical monument. Nevertheless, its significance in the history of science remains.

\* \* \*

As for Ulug-beg's observatory in Samarkand, all that was left to mark the spot was a sandy hill.

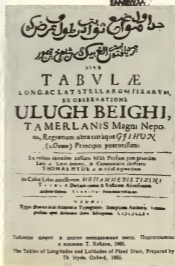
When the Russian archaeologist, Vassili Vyatkin, started searching at the beginning of this century for the remains of the ancient observatory, Moslem fanatics tried to interfere with the excavations.

Despite their opposition, the work proceeded and soon the diggers found stone steps leading into the depths of the hill. Both sides of the staircase were faced with marble reliefs. Carved numbers and signs showed degrees. It was the famous sextant of Ulug-beg for defining the altitude of celestial bodies.

Now it became possible to establish the dimensions of the observatory: the sextant's arc was approximately 200 feet long, with a radius of 125 feet. Part of the arc was underground and part on the surface, ending at the 100-foot quadrangular tower of the observatory.

Today, visitors to Samarkand can climb the hill and see the giant steps of the Ulug-beg sextant. The site is now considered part of the Samarkand Museum.

Ulug-beg.



The Tables of Longitudes and Latitudes of Fixed Stars, published by Th. Hyde, Oxford, 1865.



*Valentina Gagarina with her elder daughter, Lena*

*I am writing this with a ball-point pen that once belonged to Yuri Gagarin, our planet's first spaceman. I had driven out to Zvyozdny Gorodok (Stellar Town) to see Valentina Gagarina and give her some letters of condolence that had come addressed to our magazine for her after the tragic death of her husband. I also had some of his most recent photographs, taken three days before the catastrophe.*

*More than two months earlier, when I had first come to see Yuri Gagarin, Lena, the spaceman's elder daughter, had opened the door for me. She was there to greet me at the door this time, too. As I entered the room everything seemed to be exactly as it had been before. Everything except Valentina herself. She had changed. Bitter lines were now showing at the corners of her mouth.*

## VALENTINA GAGARINA TELLS OF YURI'S LAST DAY

by Alexei GOLIKOV

*from the magazine OGONYOK*

"Let me see the photographs first," Valentina begged.

Lena bent over her mother's shoulder.

"Look, that's Daddy! And that's where I'm giving him a drink of water. And here he is with the gun, the one you gave him, remember?"

Valentina's eyes were brimming with tears.

"I gave him that gun as a birthday present. His birthday was on the 9th of March. He had always wanted a

Tula shotgun, and he was so pleased with the present that he jumped and skipped about like a young boy. He never did get the chance to try it out."

I told her I had brought along all the photographs there were, but that they hadn't all turned out too well.

"That doesn't matter in the least," she said. "Any photograph of his is endlessly dear to me, especially the most recent . . . No, that's not true . . . The first ones mean just as much to me. See, this was taken the year we first met."

From a time-worn snapshot the close-cropped head and smiling face of a cadet, boasting flyer's shoulder-straps and a parachute-jumper's badge on his field-shirt, gazed at me.

"I was born and brought up in Orenburg (in Southern Russia)," Valentina told me. "I met Yuri at a dance at the flyers' school. We used to call the cadets 'baldies' because of the way they had their hair cropped short. I remember how he came up smiling and asked me for a waltz. You know how he smiled."

Valentina was seated in the very chair Yuri had occupied when I visited him on the 24th of March. That was the day Yuri had brought Valentina home from hospital for Sunday. I asked her to tell me about those last three days.

"On Sunday evening Yuri drove me back to the hospital. I have a stomach ulcer, you know. He came to see me again on Monday, explaining that he wouldn't be able to make it on Tuesday as he would be busy

from early morning till late at night.

"So, of course, I didn't expect him on Tuesday, which was the 26th, and in the morning after my treatment I went out for a walk with one of the patients in my ward.

"We were out in the hospital garden, sitting on a bench and talking, when a car drove up and, to my great surprise, Yuri got out. He had found himself near the hospital on business and decided to drop in and tell me not to worry, as he would be very busy the next day and would not come.

"While he told me about the girls and what was happening at home, he kept looking at his watch. 'I have to be at the airfield in an hour,' he said, 'to prepare for tomorrow. I've got a training flight scheduled for the morning.'

"He sat down and talked to us for a while and then drove off. I didn't know it was the last time I would ever see him alive.

"I was always a little nervous when Yuri was flying, like all the wives of airmen, I suppose. It was the same way on the 27th of March. I just couldn't keep him out of my mind the whole day long, and waited impatiently for evening to come.

"At eight o'clock I telephoned home in the hope that he might have returned. The line was busy. For an hour and a half I kept on phoning, but I couldn't get through, so I decided to ring the neighbours and have them find out who was on the line. They told me that the telephone was out of order, but everything at home was all right.

"I tried telephoning again the next morning, but the phone had evidently not been repaired. And then, quite unexpectedly, Valentina Tereshkova, Andrian Nikolayev and Pavel Popovich walked in. As soon as I saw them my heart was gripped with fear.

"Has anything happened?" I asked them.

"Yes," they said. "Yesterday morning . . ."

Here Valentina interrupted her story to say, "Look. This is what he had planned to do that day."

The desk calendar showed Wednesday, March 27, 1968. Under the date was a neat column of memoranda in Yuri Gagarin's writing: "1) 10.00—training flights. 2) 17.00—editorial office of *Ogonyok*. Have to make a speech. 3) 19.30—meet a foreign delegation at the Central Committee of the Young Communist League."

"Yuri always wrote down what he had to do each day," Valentina said. "He never had enough time, never had a minute to spare."

She took one of the letters I had brought and began to read it. It was a collective letter from the women of the needle shop of the Podolsk Engineering Factory. They wrote that they felt her grief deeply and sorrowfully and wept with her at her loss. They were interested in the state of her health, and asked her to write to them about herself and her children.

Many letters like this one had come for her addressed to the editorial office of *Ogonyok*.

"My health is improving," she went on. "I have left the hospital and

am at home now. I have decided to stay in *Zvyozdny Gorodok*, although it will not be easy, as everything here reminds me of Yuri. Why, even at this moment it seems that Yuri will walk out of his study to give an interview to you.

"The main reason for deciding to stay is because of the children. They are happy here. They go to a very good school. My elder daughter is nine. She is in the fourth form. My younger is seven and started school in September.

"The town itself is very beautiful and is situated in a very healthy spot. The children are free to run about and play at will, as there are no cars or other traffic. I don't have to worry about them at all. And then I have so many friends here, and that is so important when things go wrong."

Valentina requested that her deep gratitude be sent to all who, at this sorrowful hour in her life, had turned to her with words of comfort and sympathy and were interested in the state of her health and her further plans.

As I was leaving, Valentina reached for the black ball-point pen on her husband's desk.

"Please take this in memory of Yuri Gagarin," she said. "It was always here near the calendar. He used it to schedule each hour of the last day of his life."



# MAXIM GORKY RECALLS LENIN

Maxim Gorky, the writer, was a great friend of Lenin's for many years, and once wrote that Lenin had been a good and considerate friend to him. He had opportunities to observe Lenin in all kinds of situations and with all kinds of people.

Here we give some excerpts from an article Gorky wrote about Lenin after the latter's death in 1924.

Vladimir Lenin is dead.

Even certain people in the enemy camp acknowledge frankly that in Lenin the world has lost a man "who amongst all his great contemporaries is the most striking embodiment of genius".

The *Prager Tageblatt*, a German bourgeois newspaper, has published an article about Lenin, filled with respectful amazement at this great figure. It finishes with the words, "Even in death Lenin is great, surpassing comprehension, and awe-inspiring."

From the tone of the article it is clear that Lenin's death has not evoked that physiological satisfaction cynically expressed by the saying, "The corpse of one's enemy always smells sweet." There is not that sense of gladness one is conscious of in people when some great turbulent figure leaves their midst. Instead, a loud note of man's pride in man sounds throughout.

... It is a difficult thing to paint a portrait of him. Lenin was clothed in words, as a fish in scales. He was simple and straightforward, like everything he said.

There was almost no outward glitter about his heroism; it was of a type common in Russia—the modest, selfless asceticism of a revolutionary intellectual unshakably convinced of the possibility of social justice on this earth, the heroism of a man who renounced all the pleasures of the world in order to undertake onerous work for the happiness of mankind.

... I can still see the bare walls of the incongruously godly wooden chapel on the outskirts of London\*, the pointed windows of the small, narrow hall which looked like the classroom of a poor school. The building resembled a church only from outside, and inside there was no sign of sacred objects. Even the low pulpit was not in a prominent place in the front. Instead it was at the back, between two entrance doors.

I had not met Lenin before that year†, and I had not read as much of his work as I should have done. But what I had managed to read—and especially what I had heard about him from my comrades who knew him personally—made me feel strongly drawn towards him. When we were introduced he wrung my hand, examined me with his keen eyes and said jestingly, in the tone of an old acquaintance, "It's a good thing you've come! You enjoy a fight, don't you? There's going to be a big fight here."

I did not expect Lenin to be like this. It seemed to me that there was something missing. He spoke with a burr and stood rather foppishly, with his hands thrust into his armholes. To me he seemed too ordinary. I could not sense anything of the "leader" in him.

\*In this chapel the Fifth Congress of the Russian Social-Democratic Workers' Party was held from April 30 to May 19, 1907.

†Gorky's memory was at fault here, as he himself pointed out later. His first meeting with Lenin was in St. Petersburg in 1905. At the 1907 Congress in London he became closer acquainted with Lenin.

... In autumn 1918 I asked Dmitri Pavlov, a Sormovo worker, what he considered Lenin's most striking quality.

"Simplicity," he said. "He's as plain and simple as the truth."

He said it as though it were something he had thoroughly thought out a long time ago.

... We had a free evening while we were in London, and a few of us went to the music hall. Lenin had a ready, infectious laugh as he watched the clowns and the slapstick comedians, and looked on indifferently at the rest of the performance except for a scene in which lumberjacks from British Columbia chopped wood in front of a small backdrop representing a lumber camp. He was especially intent as two hefty lumberjacks got through a great tree trunk about a yard thick in the space of a minute.

... I never met anyone who could laugh so infectiously as Lenin. It was even a little strange to see that such a stern realist, a man who saw things so clearly and was so deeply aware of the inevitability of great social tragedies, who was intolerant and unwavering in his hatred for the world of capitalism, could laugh like a child, till the tears ran down his cheeks and he was gasping for breath. One has to be in robust spiritual health to be able to laugh like that.

"Oh, you joker!" he said through his tears. "I didn't expect that. It's too funny for words...."



Lenin and Gorky.

Wiping away his tears and becoming serious, he said with a warm and wholehearted smile, "It's a good thing that you can take a humorous view of setbacks. Humour is a wonderful, healthy quality. I very much appreciate humour, but I haven't the gift myself. And it's true that there are just as many amusing things in life as there are sorrowful ones."

... I cannot imagine any other man in such a high position who could resist the temptations of ambition and preserve a lively interest in "ordinary folk".

He had a certain magnetism which won the hearts and sympathies of working people. He did not speak Italian, yet the fishermen of Capri, who had seen Chaliapin and quite a few other outstanding Russians, by some sixth sense immediately singled out Lenin as someone of particular importance.

His laugh was fascinating, the heartfelt laughter of a man who, while perfectly able to see the ineptitude of human stupidities and acrobatic contrivances of reason, could still enjoy the childlike naivety of the "simple-hearted".

Giovanni Spadaro, an old fisherman, said of him, "Only an honest man can laugh like that!"

Rocking in a boat, on waves as blue and transparent as the sky, Lenin learned to fish "from the finger", with a line but no rod. The fishermen explained to him that he had to hook the fish as soon as his finger felt the line quiver.

"Like this: *ding-ding!* Understand?"

He immediately hooked his fish, pulled it in and shouted like a delighted child, an excited hunter, "Aha! *Ding-ding!*"

The fishermen laughed also with childlike glee, and dubbed their new colleague "Signor Ding-ding".

After he had gone away they kept asking, "How are things with Signor Ding-ding? The Czar won't get hold of him, will he?"

... Life is arranged in such a fiendishly artful way that if you are unable to bate, you cannot love sincerely. It is just this need for a duality of spirit which basically distorts man, the inevitability of love through hate that spells doom for modern conditions of life.

In Russia, in a country where the necessity for suffering is preached as a universal means of "saving one's soul", I have never met, nor do I know of, anyone who had such a hatred for unhappiness, grief and suffering.

... What I find extraordinarily great in Lenin is his feeling of intolerance, his unappeasable hostility towards human unhappiness, his bright faith that unhappiness is not an inalienable basis of living, but an abomination which people can and must firmly throw off.

I would call that fundamental feature of Lenin's character the militant optimism of a materialist. It was this that particularly drew me to this man—a Man with a capital M.

... I admired Lenin's clearly-expressed zest for life and his



*Lenin  
(left of the chessboard)  
during a visit  
to Gorky on Capri.*

vigorous hatred for its abominations, and I loved that youthful excitement he imparted to everything he did.

I was astounded by his superhuman capacity for work. His movements were light, deft and economical, but his powerful gestures were absolutely in keeping with his speech—here, too, there was economy of words but abundance of meaning.

In his Mongolian-type face those keen eyes of an unwearied fighter against the falsehood and grief of life burned, crinkling up, winking, smiling ironically, or flashing with anger. The brilliance of his eyes made his speech even more fiery and clear.

Sometimes it seemed as though his indomitable energy manifested itself in showers of sparks from his eyes, and that his energy-saturated words shone in the air. His speech always evoked a sensation of irrefutable truth.

... He was by nature zestful, but it was not that feverish zest of the gambler; in him one saw it in an exceptional soundness of spirit only possible in one who is utterly confident of his vocation, is deeply aware of his relationship to the world and has a complete understanding of his role in the world's chaos—that of the enemy of chaos.

He could find the same enjoyment in a game of chess, in consideration of "The History of Costume", in hours-long arguments with his comrades, in fishing, walking the rocky paths of Capri, scorched by the southern sun, and admiring the golden flowers of genista and the

grubby-faced children of the fisherfolk.

... He loved humour, and laughed with his entire body, shaking with mirth and sometimes laughing to the point of tears. Into the brief, characteristic exclamation "Hm-hm!" he could put an infinite range of meaning, from biting irony to cautious doubt, and often that "Hm-hm!" indicated the trenchant humour of a clear-sighted person well aware of the terrible absurdities of life.

Stocky and thickset, with a head like that of Socrates and all-seeing eyes, he often took up strange and slightly comical poses—he would throw back his head, bend it to one side and thrust his thumbs into the armholes of his waistcoat. There was something amazingly dear and amusing in this pose, some hint of a victorious cockerel, and at such a moment his whole being was radiant with joy, he was a great child of this accursed world, a wonderful person who must needs sacrifice himself to enmity and hatred to accomplish a deed of love.

Until 1918, the year of the vile and sordid attempt by counter-revolutionaries on Lenin's life, I had not met him in Russia, and had not even seen him from a distance inside the country. I went to see him when he was still unable to use his arm very well, and could hardly move his wounded neck. In response to my indignation he said reluctantly, as though speaking about a subject he was heartily sick of, "A fight. Can't be helped. Everyone acts according to his lights."

... A man with an astonishingly strong will, Lenin possessed, to the ultimate degree, a quality typical of the finest of the revolutionary intelligentsia—self-denial, sometimes carried to the pitch of self-torture, on the principle, "People do not live well, so I too must live like them."

In grim, hungry 1919 Lenin felt it shameful to eat the food sent him by comrades, soldiers and peasants from the provinces. When a parcel was brought to his bare, uncomfortable apartment, he frowned in embarrassment and hastened to share out flour, sugar and butter to comrades who were sick or weak from lack of food.

... Undemanding for himself, a non-smoker and non-drinker, a man who was hard at work from morning to evening, he was quite incapable of looking after himself, yet kept a keen eye on how things were going with his comrades. He would sit at the desk in his study, writing rapidly, and would say without lifting his pen from the paper, "Hello, how's your health? I'm just finishing. One of our comrades in the provinces is getting fed up—he's probably tired. We have to keep his spirits up. A person's mood is rather important!"

Once I went to see him in Moscow and he asked, "Have you had dinner?"

"Yes," I replied.

"You're not just saying so?"

"I've got witnesses—I ate in the Kremlin canteen."

"I've heard the cooking's terrible there."

"Not terrible, but it could be better."

He right away wanted to know the details. Why was it bad, and how could it be improved?

He began to mutter angrily, "What are they up to there? Can't they find a decent cook? People are working till they're dead on their feet, and they need appetising food so that they'll eat more of it. I know we're short of food and that it's not good quality—so we need an able cook."

He went on to quote the opinion held by some dietician on the role of good seasoning in catering.

"How do you find time to think of such things?" I asked.

"About proper feeding?" he asked in turn.

I understood from his tone of voice that my question was out of place.

An old friend of mine, P. A. Skorokhodov, a tender-hearted man, used to complain about the onerous nature of his work at the Cheka\*.

"I don't think it's the right kind of work for you; it's not in character," I told him.

He agreed sadly. "It's quite out of character."

After reflecting a little he said, "But just think: Lenin must also have to do things he doesn't enjoy quite often—and I'm ashamed of my weakness."

I have known many workers who

\* Cheka—abbreviation for All-Russian Extraordinary Commission for Combating Counter-Revolution and Sabotage, which was set up soon after the Revolution in October 1917.

have had to grit their teeth and get on with things they did not enjoy doing, to push their inherent "social idealism" to the limit for the victory of the cause they served.

Did Lenin have to force himself to do things he did not like doing?

He paid too little attention to himself to talk of himself to others, and was unrivalled at maintaining silence on the secret storms racking his soul. But once when he was surrounded by local children at Gorki he said, "They will live better than

we do; much of what we have experienced they will never go through. Their lives will be less rigorous. . . ."

Looking into the distance, to the hills on which the village had established itself, he added thoughtfully:—

"All the same, I feel no envy for them. Our generation has succeeded in accomplishing something of staggering historical significance. Imposed by circumstances, the severity of our lives will be understandable and justified. Everything will be understood, everything!"

People file into the Hall of Columns, Moscow, by the thousand to pay their last respects to Lenin.





# A RUSSIAN



# ROBINSON CRUSOE



## A RUSSIAN ROBINSON CRUSOE

In the history of Russian sea-faring there have been a number of cases of a man being stranded alone on an uninhabited island. One such incident, which is little known, was recounted by Leonid Paseniuk in the weekly NEDELYA.

In 1805, eleven trappers stepped off a vessel of the Russian-American Fur Company. They were being landed by a Captain Potapov on the Commander Islands in the Bering Sea.

For some reason unknown to this day, Captain Potapov never returned for these men. And only seven years later did a certain Captain Vassiliev manage to organise a search expedition.

He began with the uninhabited Medny Island, and, sighting a hut in a cove, ordered one of the ship's guns to be fired. Almost immediately a boat pushed off from the shore. In it were the seven survivors of the trapping party.

Though joy at being rescued literally knew no bounds, they agreed to stay one more year to complete their job.

But that is not the most interesting part of the story. These men had another companion, Yakov Mynkov, who had been put off on Bering Island, "to watch the pelts". Amazingly, Captain Vassiliev found Mynkov alive too. He had not expected such luck.

There is no need to describe how utterly unprepared Mynkov was for life on an uninhabited island, how he had to learn all

the techniques of survival right there on the island, alone.

The diary of Captain Vassiliev contains the following words of Mynkov's:—

"I had to get all my food for myself, and clothing, too.

"The first few days I ate nothing at all. There were fish in the river, but what was I to catch them with? Necessity taught me to bend a nail for a hook, and I caught the fish.

"As for fire, fortunately I did have a cut-throat razor. I then found a piece of flint and some willow wood that was rotten enough to use for tinder, and I kept on striking sparks until the spongy wood caught fire. Never in my life had I been so happy as at that moment."

"The place where I had landed was not very good for getting food, so I crossed over to the other side of the island and settled by a river where there was plenty of fish.

"Towards the end of autumn I crossed back to the old place, but when I got there I found that all the Arctic fox pelts I had left in the hut were already spoiled.

"As winter set in I got snow-bound. My clothes and shoes by this time were completely worn out. But what I needed most was fire, and that is what I

had the most trouble getting.

"I was all alone and forsaken, forgotten by the whole world on an uninhabited island, without food, clothes, or help of any kind.

"Of course, all manner of terrible thoughts passed through my head, and I nearly lost my wits..."

This tale of woe is far from complete. It leaves out most of what the man experienced and how he really felt on that little bit of land in the middle of the ocean. His fragmentary story quoted here—and this is all we have—refers only to the first year, or even less than a year, of his stay on the island. What of the years that followed?

A new "Robinson Crusoe" could doubtless be written about that, one that might outdo the original, at least in the number of difficulties to be overcome.

For one thing Crusoe was shipwrecked on a tropical island with plenty of fruit. Then, he had the wrecked vessel, from which he took all he could use on land. Finally, he had his faithful Man Friday.

Robinson Crusoe—or should I say his prototype, Alexander Selkirk—really had it good compared with the unfortunate Russian, Yakov Mynkov!

## SPOTLIGHT



by Vladimir POZNER

*A regular monthly column of personal news, views and argument by Vladimir Pozner, a young Moscow journalist. Translator of English and American literature, he has travelled extensively throughout the Soviet Union in his search for ideas and material.*

THE word—and concept—of “gap” has become one of the most popular in the West. During the past decade it has graced the vocabularies of politicians, sociologists and journalists, who have coined such die-hard terms as the space gap, the missile gap, the education gap, the technology gap, and the Intelligence, or They-Spy-Better-Than-We-Do gap.

Now a book recently published in Great Britain and the USA (*The Gap* by Richard Lorber and Ernest Flodell) calls attention to a new hiatus: the Generation Gap.

The concept in itself is not new (this may be the understatement of the year) since it broaches one of the oldest topics of conversation: what divides the generations?

The subject is of interest to one and all, Soviets included. Because if, indeed, something divides generations, insight into just what it is could help furnish an answer to the future of our world.

Thirty years are thirty years . . . or are they? It might seem superficial to say that the Generation Gap is no more than the effect of time. It has always existed. And the 30 years that divide the 50-year-olds from the 20-year-olds were always the same 30 years . . . or were they? Certainly, a difference of three decades must hinder communication between generations; but were these difficulties always the same? Wouldn't it be true to say that, in the past, time moved much less quickly than today,

although the planet took—and still takes—24 hours to revolve around its axis? Socially, economically and technically, the twentieth century has advanced at a cosmic speed.

The information youngsters get, as compared with what their parents got at the same age, is infinitely greater than, say, the same for two generations that lived in the eighteenth century. When my eight-year-old daughter says to me: “Dad, wasn't it Loba-chevsky who said that anything under the sun can be expressed through numbers?”, or when kids on Moscow streets play at being cosmonauts, I think the reason for a new dimension in the gap becomes obvious.

Thus, the generation gap has always existed, only now more so. But it is one thing to speak of a gap and another to try to analyse the thing that divides the generations—if, indeed, they are divided. Judging from “The Gap”, no real division exists, at least, in what concerns the West. This statement may be violently attacked. But a few examples should suffice to prove my point. Let us make a few comparisons drawn from that book:—

THE OLD GENERATION would be glad to take the XYZ account, even if they make napalm.

THE YOUNG GENERATION is against napalm, but would not leave school paid for by father who is in the napalm business.

OLD: They like business. It stimulates them, “turns them on”. They do not smoke “pot” because it gives one

a bad image and is habit-forming.

YOUNG: They are contemptuous of business because they are afraid they might like it. They smoke “pot” because it “turns them on”.

OLD: They are individualists and are really committed to only one thing—themselves.

YOUNG: They want their own time to be at their disposal, they are notorious for “dropping out”.

OLD: They realise that something in the system “stinks”, but see no alternative to the system and so are for it.

YOUNG: They are anti-Establishment, think the system is rotten, but have no positive programme.

So excepting an assortment of beards, long hair and some other minor items, what divides the generations? Frankly, it is rather hard for a Soviet observer to see. Especially since in the Soviet Union the situation is quite different.

### Cool Analysis

Those who are 50 today in Russia were 20 in the late 1930s. They were children of the Socialist Revolution. Born one year after it took place, they were four when the Civil War came to a close, nine when the country began to industrialise, eleven at the time of collectivisation on the farm, in their teens when a new country began to grow east of the Urals.

There was a time of Red vs. White, a time when Russia was surrounded by enemies. There was a time when Russia was struggling to live, a heroic and tragic period. Then, as they

passed their 20-year mark, the holocaust of war engulfed their land, and for five long years, millions of them sacrificed their lives to overcome the greatest and most horrible military machines ever invented.

And what did they have in 1945 when they were 27? A victorious country, a great pride, a deep sense of having fulfilled their historic mission? Yes, all that and much more. But also they had a land ravaged by war, a whole industry to build anew, a country where women had to do men's jobs because there were no men to do them. Houses had to be built—for thousands of cities had been wiped off the face of Russia, crops had to be produced—for the people were hungry, many to starving point. Today's 50-year-olds gritted their teeth and went to work.

And it is thanks to them that those who are 20 today grew up in a society of relative affluence, a society where one not only doesn't need to spend all one's time and energy on the problem of bread, but even on that of bread and butter.

That, I believe, is where the reason for the generation gap in my country lies.

The older generation had very little time to sit back and think. For them it was always a question of do or die, a question of keeping the Revolution's results alive in the face of open hostility, knowing that there were no friendly countries to count on. This kind of atmosphere was one which made issues take on a black and white aspect, a time for decisive steps somewhat detrimental to a sophisticated intellectual outlook.

It is always hard to make generalizations, but I think one could call the older generations not Communists, in the sense that, while being true Communists, the time they grew up in instilled in them the urge to act quickly, a Yes-or-No philosophy without any "perhaps" (it was, after all, their generation that grasped the motto "He who today is not with us, is against us").

#### No basic quarrel

The present young generation has had the time to rationalise, examine, mull over. It has no basic quarrel with its elders, being very much for Communism, but the divergences exist and stem from the fact that the younger generation is more flexible, is prone to study deeply the "perhapses" and less stark hues, as opposed to the Yes-or-No, black-and-white position often assumed by their fathers.

Here is where the dispute rests, a dispute that has an explanation, a difference concerning not the goal itself—there is little but agreement there—but concerning a more detached, cool analysis of the means and ways.

Yet one thing must be carefully noted: if today's Soviet 20-year-olds have had the time to think and compare, if this in turn has led to what might be called a generation difference, it has occurred only thanks to the older generation of Communists. In other words, the young generation is the way it is, thanks to, and not in spite of, the older.

*The Soviet Marriage and Family Code has now been revised for the third time.*

*Does this involve any abandonment of principle?*

*Soviet law on this subject, like any other law, does, of course, represent State interference in personal life.*

*What are the grounds for this?*

## Marriage and divorce in the Soviet Union



*A discussion on the Marriage Code*

by Yevgeni VOROZHEIKIN, lawyer



*In 1968 a draft of a new law on marriage and family was published in all the languages in use in the Soviet Union. There could not have been a single family in the country—and there are more than 60 million families in the USSR—where the draft did not get its share of discussion. For several months it was the subject of keen debate in the national and local Press.*

*While approving the draft as a whole, people put forward hundreds of amendments and addenda. Many of these were incorporated in the final version, which was passed by the USSR Supreme Soviet in June 1968.*

*What changes have been made in the old Code? Why has the law been revised—and not for the first time? Is there any truth in the views of sociologists in other countries, who say that these repeated revisions indicate contradictions in the policy of the Soviet Government in relation to the family?*

In 1918, in the town of Vladimir, not far from Moscow, a "decree" was published which is an interesting historical curio. It ran as follows:—

*"After the age of 18 all girls are declared to be State property. Any girl reaching the age of 18 and remaining unmarried is liable to be penalised for failing to register at the Bureau of Free Love. A girl who registers has the right to choose a man of between 19 and 50 for purposes of co-habitation . . .*

*"Those wishing to do so may choose a husband or wife once a month. Men aged between 19 and 50 have the right to choose a woman registered at the Bureau even without*

*the latter's consent—in the interests of the State. Children ensuing from such co-habitation become the property of the Republic."*

This "decree" did not, of course, become law, having been promulgated by some self-appointed law-givers. But it did reflect the mood of certain circles of the intelligentsia. What was the origin of these views?

The 1917 Russian Revolution began while the First World War was being fought. That was followed by Civil War. Millions of men never returned home. The breakdown of family relationships was also influenced by economic difficulties due to devastation.

The collapse of the old way of life and the reappraisal of all the old moral values was accompanied by a praiseworthy desire to undertake a radical reorganisation of everything, including the institution of marriage. Hotheads proclaimed free love, calling on people to break away from the traditional legal and moral principles hitherto regulating relations between the sexes, dismissing them as "prejudices" or "survivals of the past".

They sincerely looked on their own attitude as revolutionary and Communist.

Criticising this vulgarised approach to the problem of marriage and the family, Lenin said, "An old man, I do not find this impressive. I am by no means the gloomy ascetic, but . . . This has nothing in common with freedom of love as we Communists understand it."

Lenin pointed out that as far as Communists were concerned, freedom of love could only mean freedom from material (that is, financial) calculations and worries, from the prejudices stemming from religion or property or property ownership, from parental bans and so on.

One of the main aims of the Communists was the emancipation of women.

In pre-revolutionary Russia, not only did a woman have no freedom to choose a trade or profession; she could not even decide her own place of residence. Her rights in regard to her children's education and the disposal of property were restricted.

In the family she was subordinate to the men—to husband, father and brothers. In the marriage laws of the Russian empire it was plainly laid down: "A wife must defer to her husband as the head of the family, must live with him in love, respect and infinite obedience, and must give him every satisfaction and affection."

The first piece of "State interference in personal life" was the rebuilding of family relations on a more progressive basis.

#### 1918 Code: Order, not anarchy

In the first of its statutes on this subject, in December 1917, the Soviet Government proclaimed the voluntary nature of marriage and freedom of divorce. Church ceremonies were permitted, but they did not carry with them any legally binding obligations. In actual fact only civil marriage was recognised. It could be dissolved by mutual consent or at the demand of either partner.

These principles remained unchanged in the first of the Soviet Marriage Codes, adopted in February 1918. True, they were added to, but only in a sphere not touched by the early decrees—the property status of women.

The following formed the foundation of the new legislation:—

**Monogamy.** Marriage to an already-married man or woman was made illegal.

**Voluntary Nature of Marriage.** In order to register a marriage, the

"mutual and freely given consent of both parties" was necessary.

**Freedom of Marriage and Divorce.** There was a lifting of all restrictions requiring the consent of third parties by virtue of national, social or religious affiliation. Dissolution of a marriage was to be accomplished through the courts—on application by one of the partners, or, if the request came from both partners, simply through the Registry Office.

**Equality of the partners in the family and in relation to property.**

**Compulsory financial support for members of the family incapable of working.**



I would not dream of claiming that the first Soviet Marriage Code was ideal—this has never been the case so far anywhere. Lenin said of it, "It is simply clearing the ground for reorganisation, and is not reorganisation itself."

How was the edifice subsequently erected for the Soviet institution of family and marriage?

#### 1926 Code:

##### Old and new in combat

A new Code came into force in January 1927, having been drawn up the previous year. It incorporated most of the provisions of its forerunner, for there was no question of abandoning old principles. But the situation inside the country had undergone changes, and some other forms of regulating marriage and family relations were needed.

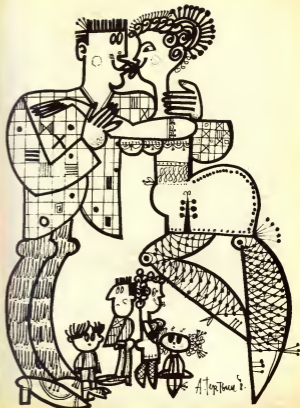
The main feature of the new Code was that unregistered marriages were put on the same level as registered marriages (as regards the obligations they entailed). Not all partnerships were thus brought under the wing of the law, but only so-called *de facto* marriages, the existence of which could be proved in court.

To understand this change properly, one must bear in mind that by 1923 there existed about 160,000 *de facto* marriages in the country, in which family relations were fully established and which both partners looked upon as actual marriages, even though they were not registered. Generally, it was the man who did not want to register the marriage, and the wife and children were thus defenceless in the face of any despotism on the man's part.

The 1926 Code aimed at putting a stop to any use for ulterior motives of difficulties arising from the breaking down of pre-revolutionary marriage and family relations. In a way it was a manoeuvre, a concession to a situation temporarily existing in the country. Some sociologists abroad saw it, however, as "the end of the stability of the family home".

The Soviet Government accepted amendments, by no means considering the new law to be irrefragable. Before it was passed there was prolonged and widespread discussion, during which many objections were voiced.

There had to be a choice between principles which were each precious in their own way. The choice went



to those things which were felt to be most acutely necessary—the emancipation of women and the elimination of inequalities between illegitimate and legitimate children.

And it was not the fault of those who made the laws, but their misfortune, that they had to accommodate themselves to a complex and changing situation, in which a property-dominated type of marital and family relations prevailed, having been inherited from pre-revolutionary days, in which a fight was in progress between the old and the new—the new tendencies still had only a very weak economic basis, while the old had preserved their economic positions and were hitting out in two extreme directions simultaneously: for relations of slavery in the family on the one hand, and for the bourgeois ideology of free love on the other.

The work started to improve the Marriage Code still further was interrupted by the Nazi attack on the USSR. War brought new economic, demographic and psychological upheavals. It is enough to recall that to this day there is a surplus of 20 million women in the Soviet Union.

Additional legislative measures became necessary to reinforce the stability of the family and to stimulate the interest of the family in having children and rearing them.

#### 1944 Law:

##### What it meant

In 1944 the Supreme Soviet of the USSR adopted another law relating to marriage and the family.

It increased State help to mothers and expectant mothers.

Some experts in other countries interpreted this as "an attempt by the State to exert economic pressure on women with a view to forcing them back into the home". They represented the new law as a negation of the old statutory provisions, which "encouraged women to go out of the home into production".

This is not the case at all.

The task that had to be accomplished by the 1926 Code—to overcome the economic, moral and legal inequality of the sexes in the family and in society—had in the main been achieved by 1944.

Among the new problems at the end of the war there was in fact the question of encouraging motherhood. But that was not all. The 1944 law envisaged a whole series of measures to make things easier for women in the home and in production (the building of more nursery schools and crèches, maternity and child welfare centres, etc.). It raised the social prestige of women, and especially of mothers, strengthening their position in the family and society, their equality with men.

In this sense the 1944 Law was a direct extension of the 1918 and 1926 Codes.

There are no grounds whatever for the charge that it represented "inordinate interference on the part of the State in family life". (It is interesting to note that after the introduction of the 1926 Code, the Soviet Government was accused of not interfering, whereas after the 1944 Code the front

of criticism veered a whole 180 degrees.)

Any law on marriage and the family is interference by the State in family life. It is not the interference itself that is important, but the aim behind it—what it is designed to achieve and how far it is carried.

On a number of points the 1944 Law appeared to be a return to the 1918 position, but this time it was on a new basis. Whereas the 1926 Code envisaged the possibility of legal sanction for unregistered unions, the 1944 Law returned to the position of the 1918 Code, and recognised only registered marriages.

The procedure for divorce was changed—this became a two-stage affair. In 1926, divorce procedure was made simpler than under the 1918 Code, but in 1944 things were tightened up.

At the first stage, the district court, the marriage could not be dissolved. The function of the district court was to try to sort matters out with a view to preventing the break-up of the family if possible. If the court could not reconcile the couple, the case went on to the regional court, which was the only court with the power to grant a divorce.

The cost of a divorce was increased, and a petition was surrounded by wider publicity. For example, it became obligatory to publish a notice in the local newspaper stating where and when the case was to be heard. All this was done to foster a more serious attitude to marriage.

The effects were soon felt. Many

couples who had not registered now did so—under the new law this was necessary in order to clarify the legal status of the children. At the same time the number of people petitioning for divorce without really good reason dropped.

#### And 1968:

##### Why a new law?

Although the 1944 Law had positive results, many years of experience in the courts showed up its weak points.

The complicated nature of the divorce procedure led to a certain amount of red tape, making divorce difficult even where it was obviously necessary. Consequently, there was a re-simplification of the procedure in December 1965, when it became possible to obtain a divorce in the lower, district court.

Under the 1968 Law a divorce can be obtained without going through the courts, direct at the Registry Office, but only in cases where there is mutual agreement and the couple have no children. Newspaper advertisement was also abolished.

Frequently-expressed public criticism in the Press played its part in securing these amendments to the 1944 Law. There was a particularly stormy debate over the payment of maintenance for a child by its natural father\*.

By recognising the validity of registered marriages only, the 1944

\* See *Sputnik*, September 1967.

Law put a stop to attempts by certain women, who had conceived children in a somewhat casual way, to demand maintenance from men who were not the actual fathers—for instance, from men who were highly paid. Unfortunately, it provided no redress for the woman who had an indisputable right to claim on the actual father of her child.

The way out might have been to give the mother the right to claim maintenance for the child where she was the victim of a proved deception. But the problem was not as simple as that. There is still no scientific method by which paternity can be established with absolute certainty. And it was extremely difficult to devise a legal criterion for distinguishing between the honest mother and the fraudulent claimant.

Under the 1968 Code, the courts have been given the right to decide on claims for maintenance upon the natural father. There can, of course, be mistakes, but it is felt that the harm done in this way is far outweighed by the justice which will result in the vast majority of cases.

The 1944 Law not only did not recognise that a father had any obligations towards an illegitimate child; it gave him no parental rights in respect of the child. A mother could deny the father his wish to take part in the child's upbringing, and even refuse to let the father see the child.

To some degree this discouraged the man from irresponsibility in his relations with women in future; but on the other hand, it meant that many

children were brought up without fathers, which was morally detrimental to the younger generation.

Under the 1968 Law the father can establish his parental rights over an illegitimate child through the courts. If the mother does not object, the matter can be settled quite simply, without going to court, by a letter to the Registry Office.

Either mother or father may, of course, be deprived of their parental rights if they abuse them (for cruelty, or for exerting a harmful influence on the child's conduct), or do not fulfil their direct obligations.

#### The letter changes, the spirit remains

With all its differences from its predecessor, the new law remains faithful to the principles proclaimed in the past. For example, it confirms the need to make a marriage official by registering—to avoid undesirable legal complications. Under Soviet law, only civil marriages have ever been recognised legally.

Incidentally, as before, both partners must be 18 years old or over. In some republics, where traditions are different, the local authorities have power to lower the age limit, but by not more than two years.

For the first time it has become a universal requirement that a month's notice be given before the marriage can be registered. It is felt that less notice than this makes for over-hastiness and rash decisions, which are fairly common among young people. The principle that marriages must be entirely voluntary on both

sides can only gain from this rule.

As far as the new provisions governing divorce are concerned, as has already been pointed out, their foundation remains that of the 1918 Code—freedom of divorce. What is new in the 1968 Code is that a man may not initiate divorce proceedings while his wife is pregnant or within a year after the birth of a child.

The principle of monogamy remains unchanged. The law continues to ban polygamy, which was common among minority nationalities living on the outskirts of czarist Russia and survivals of which lingered on after the Revolution.

More than this, implicit in the new Code is the view that casual sexual liaisons are immoral and run counter to Communist morality, for they undermine the foundation of the family and cannot, therefore, come under the shelter of the law.

Single mothers, of course, can continue to rely on all kinds of material assistance from the State.

Equality for "legitimate" and "illegitimate" children is ensured, not only by the provision enabling a woman to seek maintenance for the child from the natural father, but also by the method of birth registration. If a child is born out of wedlock a blank space is no longer left in the "Father" column of the birth certificate. The father's name may be entered, either at the joint request of the parents, or, if there is no agreement, by court decision. If the mother does not want to take the matter to court, her own surname may be written in.

The cornerstone of the law remains the same: equality of the sexes. Neither man nor woman can directly or indirectly be deprived of rights or invested with privileges in relation to the other partner by virtue of nationality or race, religious conviction or social position. This applies in the contracting of a marriage and in all questions of family life.

Property, as under the 1926 Code, becomes joint property only if it is acquired jointly. Anything that belonged to the husband or wife before marriage, or was received by one or other as a legacy or gift, even during marriage, remains the property of the partner concerned.

There are additional provisions on the question of mutual material assistance. Both wife and husband are obliged to help each other, not only while the marriage is in being, but even after its dissolution. For example, if one of them becomes incapacitated within a year following divorce, he or she has a right to financial support, and this may be payable for an indefinite period.

So throughout its development, Soviet marriage and family law has remained constant to the ideas and aims proclaimed at the outset. In the latest Code these are set out as follows:—

"The further strengthening of the Soviet family, based on the principles of Communist morality; the foundation of family relations to be voluntary marital union between men and women, and mutual love and respect on both sides free from material calculations."



The latest Code, of course, is not the final word in the development of the institution of marriage and family in the USSR. It only lays the basis for legislation which will be universal to all the Union Republics.

But the USSR is a multi-national country, and there are a number of questions in which the traditions and

special features of each nationality have to be taken into consideration.

Now draft codes are being prepared for each of the 15 Union Republics. Only after these have been approved by the Supreme Soviets of the Republics will the immediate stage of development of Soviet marriage and family law be completed.

## PASTE AGAINST NOISE

*from the magazine*

*IZOBRETATEL*

*I RATSIONALIZATOR*

*(Inventor and Innovator)*

Coating metal surfaces with a noise-absorbing butyl rubber paste is Zeinal Iskanderov's contribution to the battle against the noise menace in industry; and the idea works so well that he has been awarded the Mendeleev Chemical Society's medal for it.

Boilermaking plants and other factories, where the noise is so unbearable to a normal person that only deaf people can be employed in them, have usually been thought to be beyond remedy; but Iskanderov refused to believe it.

On the basis that noise is the result of vibration, he reasoned that if you stopped the vibration, you would stop the noise.

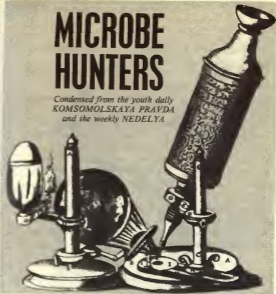
He made up a paste of butyl rubber, polyisobutylene and mineral oil, and sandwiched it between plastic film sheets. It can also be applied directly to the metal and covered with plastic film. It is sticky and non-drying.

Tried out in a paintworks, where the ball mills were coated with the paste, Iskanderov's invention made it possible for the first time to hear a normal tone of voice.

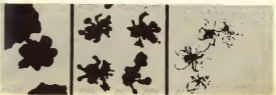
Now it is thought that the idea can help to reduce street noise affecting living quarters, by applying a layer of the paste under the wall-paper and to window-frames, and using paste to fill cracks which allow noise to penetrate.

## MICROBE HUNTERS

*Condensed from the youth daily  
KOMSOMOLSKAYA PRAVDA  
and the weekly NEDELYA*



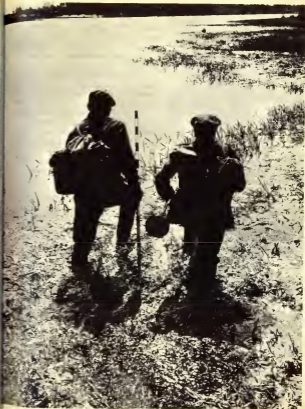
**NEW TOOLS, NEW GAINS, NEW VISTAS**



*“ . . . Alexander had gone to India and discovered huge elephants that no Greek had ever seen before— but those elephants were as commonplace to the Hindus as horses were to Alexander. Caesar had gone to England and come upon savages that opened his eyes with wonder—but these Britons were as ordinary to each other as Roman centurions were to Caesar. Balboa? What were his proud feelings as he looked for the first time at the Pacific? Just the same, that ocean was as ordinary to a Central American Indian as the Mediterranean was to Balboa. But Leeuwenhoek. . . This janitor of Delft had stolen up on and peeped into a fantastic subvisible world of little things, creatures that had lived, had bred, had battled, had died, completely hidden from and unknown to all men from the beginning of time. . . ”*

Paul de Kruif, *Microbe Hunters*.

*Off to set microbe traps in the bog. Hair-thin glass capillaries will be placed in the damp soil, and the microbes will gradually move up into them.*



Two scientists discuss tools of progress in microbiology.

They are Dr. Yevgeni MISHUSTIN,

Corresponding Member

of the USSR Academy of Sciences, and Denis NIKITIN, M.Sc. (Biology).

First Nikitin on "An Expedition to Lilliput".

In 1923, two scientists taking air samples in a plane circling over Moscow found that the air one-and-a-quarter miles above the centre of the city contained four or five times the concentration of microbes found above other parts of the city.

They had made a discovery of vast importance, at a time when virtually nothing was known of atmospheric contamination.

The scientists were Assistant Professor Boris Yuriev, later Member of the USSR Academy of Sciences, and Yevgeni Mishustin, then a student, and now Corresponding Member of the Academy of Sciences. Yuriev was piloting the plane and Mishustin took the air samples, which analysis showed, contained 20 bacteria to every cubic foot.

Their discovery is noted in a recent work by British microbiologist Frank H. Gregory, who comments on the fact that the Soviet scientists' findings were the earliest

known accurate data of their kind.

"Microbial landscape", a term first used by Russian microbiologist Dr. Sergei Vinogradsky (1856-1953), describes the distribution, density and composition of micro-organisms in space.

A man surveying his clean-shaven cheeks in a mirror would hardly suspect the truth that every square inch of their surface harbours up to 450,000 microbes, and although there are fewer to be found on the faces of women and children, the number is impressive enough—up to 1,900 per square inch.

Within the body, swarming micro-organisms are distributed unevenly, more being found in the outlets of mucous glands than in the surrounding skin. These hordes of microbes differ according to environment, so that specialists speak of facial microflora and stomach microflora. That mobile mosaic, hidden from view, is the "microbial landscape".

Geographical environment determines the microbial landscape, which changes from industrial centre to rural area, from marshy tundra to arid desert, from pine woods to wheat fields. Not only aeroplanes, but ships and deep-sea probes, geophysical rockets and drilling rigs are used to gather data.

The ubiquitous microbe is found in the air a score and more miles above the earth, miles underground, and deeper still in the ocean.

A group of researchers from the Institute of Microbiology of the USSR Academy of Sciences recently joined an expedition to the Kuriles

Kamchatka Depression. Samples of sea floor ooze dredged from a depth of more than six miles showed that micro-organisms can stand a pressure of 1,000 atmospheres. The researchers found a couple of thousand micro-organisms per acre of sea-bed, representing more than 1,000 species.

Global studies of the biosphere have given us an idea of the mass of these Lilliputians surrounding us—they vastly outnumber the Gullivers.

The world's oceans contain about one-and-a-half thousand million tons of single-celled plankton and 32.5 thousand million tons of "animals", including about one thousand million tons of whales, seals and dolphins, which is clearly less than the biomass of all micro-organisms. These calculations were reported to the 1966 Second International Congress of Oceanographers in Moscow by Dr. Veniamin Bogorov, Corresponding Member of the USSR Academy of Sciences.

Plankton, reproducing twice every 24 hours, would yield 550 thousand million tons of biomass if it were not eaten by other sea denizens, Dr. Bogorov said.

Productivity of bacteria is higher still. Land micro-organisms taken together weigh less than those found in water, but as they are concentrated in the upper layer of the earth's crust they live jammed together, as it were. One gramme of soil contains millions, if not billions, of micro-organisms, or hundreds of times more than one gramme of seawater. A 12-inch layer of ploughland

one acre in extent contains four to eight tons of microbes.

This kind of "microbe census" has helped scientists to grasp the magnitude and importance of the activity of micro-organisms.

Investigations by Dr. Vinogradsky, who isolated nitrifying bacteria late in the nineteenth century, were followed up by Dr. Omelyansky. But these studies were on a test-tube level; it remained for the followers of Yuriev and Mishustin to investigate the processes on a planet-wide scale.

Micro-organisms are vital factors in geological and atmospheric chemical changes. Nitrifying bacteria, for example, are responsible for the atmosphere's "third ingredient", nitrogen. Other micro-organisms have enriched it with oxygen.

Fields owe their fertility to these minute toilers. Dr. Vinogradsky, regarded as the father of soil microbiology, discovered a bacterium which assimilates atmospheric nitrogen. Hidden in the nodules of leguminous plants, it provides them with this vital nutrient.

Now the study of nitrobacteria occupies a place of prime importance, and is included in the International Biological Programme, which is geared over the five years from 1967 to establishing what food resources the world has and how they can best be used to meet the growing needs of the world's population.

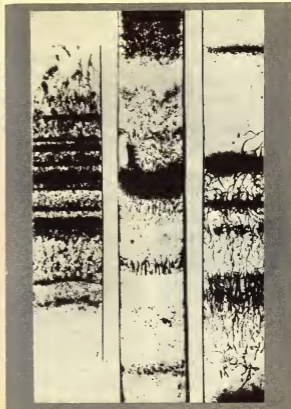
Dr. Mishustin represents the Soviet Union on the special committee in charge of the programme—he is the USSR's leading researcher in the field.

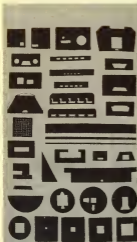
*Continued on Page 52*



*Some of the microbes caught in capillary traps,  
prepared for study in the laboratory.*

*Microbes magnified by the electron microscope.*





*Cross-sections  
of capillary tubes—  
something  
for all occasions.*

In industry, too, micro-organisms come to man's aid. Dr. Vinogradsky found that certain micro-organisms could oxidise inorganic substances such as iron.

Bacteria, too, are responsible for the Kursk, Krivoi Rog, North American (Great Lakes) and many other iron deposits. They form a numberless army of unpaid workers, exploited in processing rubber, hides, cotton, flax, silk and tobacco, and in obtaining important chemical compounds such as ethyl alcohol, acetic acid and acetone, and foods like bread, butter, cheese, coffee, cocoa, wines and vitamins.

That huge realm remains largely uninvestigated, but microbe hunters gradually place more and more micro-organisms at the service of humanity.

### Yevgeni Mishustin: Try seeing the sub-visible

Anton van Leeuwenhoek's instrument was an improvement on the lens, but it magnified only 300 times: the real microscope came later.

A new era in microbiology was opened up a quarter of a century ago with the invention of the electron microscope, which magnifies hundreds of thousands of times, compared with its predecessor's 1,500 times. With the electron microscope, scientists have been able to examine even the virus, which is hundreds of times smaller than a living cell.

*Dr. Boris Perfiliev and his assistant, Dina Gabe, of the Cytology Institute, Leningrad, who developed techniques for studying of microbes in the soil*



Despite such an aid, probably from 80 to 90 per cent of micro-organic varieties remain unknown.

The classic method of examining micro-organisms has been to transfer them from their natural habitat to artificial conditions, stimulating their propagation. But with this method far from all the elements of microflora come into the picture, a large number remaining in an inactive condition, resisting extraction from the soil. The others do not always propagate in the standard nutritive medium—apparently they need the earth.

This was noticed in the twenties by Dr. Sergei Vinogradsky and Dr. Nikolai Kholodny, who suggested that microflora should be studied both in artificial and natural,

or near-natural, environments. Two decades later these ideas were developed by Dr. Boris Perfiliev and his assistant, Dina Gabe, at the Cytology Institute of the USSR Academy of Sciences, Leningrad.

To make the microflora visible, the scientists used hair-thin glass capillaries somewhat resembling the pores of loose damp soil (they experimented with silts). The tubes, filled with the nutritive substance, are placed in a natural medium, sometimes for months. Together with the water and air, the micro-organisms gradually move from the bottom up into the capillaries, where they are observed through the microscope.

These techniques have proved extremely effective, enabling their

originators to detect within a short time more than 30 new kinds of bacteria in silt—as many as all the laboratories in the world had detected in the nine years from 1948 to 1957. Nor were they exotic: they lie literally underfoot.

Using these methods, Dr. Tatyana Aristovskaya, of the Leningrad Soil Museum, soon discovered two more types of micro-organisms.

Capillary microscopy, described by Dr. Andrei Belozersky and Dr. Semyon Mikulinsky as a “most important accomplishment of Soviet microbiology”, has earned well-merited recognition abroad.

Streptomycin, the single antibiotic which destroys the tuberculosis micro-organism, was found only after long years of arduous effort. American experimenter Selman Waksman had spent decades tracing this antibiotic, studying more than 10,000 micro-organisms.

Dr. Waksman discovered a ray-like fungus, actinomycete, a group he had begun to study after reading the works of Dr. Nikolai Krasilnikov (now a Corresponding Member of the USSR Academy of Sciences), whose laboratory had classified the group and discovered their peculiar feature of aggressiveness towards all other micro-organisms. This discovery itself was the fruit of years of grueling effort.

Waksman and Krasilnikov would have benefited greatly, and medicine would have received the effective TB preparation much earlier, had the techniques of Perfiliev and Gabe been available to them.

Proper equipment is a “must” for the microbiologist. The good old microscope, which once revolutionised concepts of nature, is far from being all-powerful, and it is the technical devices of the microbe hunters that have led microbiology to interesting new finds.

The electron microscope has its shortcomings, too. Its radiation kills micro-organisms, which can then appear to be mineral residues or specks of dust. Even the study of pure cultures, carefully cleared of soil and other impurities, is handicapped in this way.

Nobody had ever considered studying microflora in its natural habitat with the aid of the electron microscope, but we tried, and with success. My colleague Denis Nikitin and his assistants, Lina Vassiljeva and Rimma Lokhmacheva, found a whole series of previously-unknown bacteria, protozoa, micro-organisms resembling algae and viruses. They described about 20 forms and isolated three as pure cultures, one of which has been included in the 1968 edition of *Bergey's Manual of Determinative Bacteriology*.

This discovery naturally involved complicated research, using specially-evolved techniques to distinguish animate from inanimate matter and to analyse soil microflora in all its diversity. We hope their work will benefit other microbe hunters, too.

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*A cosmoscope? No, just  
a close-up of a microbe trap  
in position in the soil.*



# Man of Fables



I began to write verses early in my life. Along with my penknife and sling-shot, cherished carefully in a casket, there was a rough notebook containing some verses of mine, written out without a single mistake.

Among the verses was one fable—it was called "Culture", and the point of it was that "it is better to help people in deeds, not merely in words". I was ten at the time.

One day I wrote a tale in verse. I

copied it out in block capitals and set off for a publisher's.

My knees knocking, I went into a place that smelt thrillingly of printer's ink. They led me to "the very top man". A tiny old man in a long belted shirt received me as though I were a real author; he invited me to sit down, scrutinised my manuscript, and asked me to leave it for a few days. When he said goodbye, he held out three roubles.

by Sergei MIKHALKOV  
from his book  
*IT ALL BEGINS  
IN CHILDHOOD*

Sergei Mikhailov, one of the most popular children's writers in the USSR, was born in 1913. He spent his school years in Pyatigorsk, in the Caucasus, and in 1930 he moved to Moscow, where he studied at the Gorky Literary Institute. In 1935 his first verses for children were published, and they have been followed by many other verses, fables and plays for children.

That was my first advance!

A week later I was holding his reply in hands trembling with excitement. Printed on a stock form, it briefly rejected my story about a bear as unsuitable for publication.

I received an infinite number of such communications from various publishers until at last, in the July 1928 booklet issued by the magazine "On the Upsurge" (Rostov-on-Don), there appeared my first "really"

printed poetry: it was an eight-line verse called "The Road".

My father was sympathetically inclined towards my first literary experiments. One day he proposed that I should write a dozen quatrains for posters about poultry-farming. (Having accepted the October 1917 Revolution unreservedly, my father worked with a group of specialists in the early years of Soviet government to reorganise poultry farming,

which was done privately by individual peasants, and put it on a basis of State and public ownership.)

I willingly did what he asked, and quatrains singing the praises of collective-farm poultry-breeding and calling for modern methods in this sphere were published. My father shook my hand powerfully, and this handshake was more precious to me than any award.

At 20 I was writing verse for adults—run-of-the-mill verses with nothing to distinguish them from the work of various other poets. Some were a little better, some a little worse. They appeared in newspapers, and would perhaps even be collected in a slender volume.

Then, accidentally, I wrote my first verse for children. This first effort attracted the attention of two writers, Marshak and Fadeyev.

Samuel Marshak, with his great experience of children's verse, his delicate taste and sensitivity, began to give me guidance. Alexander Fadeyev encouraged me with some heartening words, publishing an article in *Pravda* entitled "Mikhailov's Verse". So without any internal pangs, without any regrets, I abandoned "adult" verse, in which, of course, I was appallingly weak, and suddenly acquired a lightness of heart, real enjoyment in writing verses for children. It was pleasant, happy work. That was my birth as a poet.

That was at the beginning of the thirties. In 1944 new creative vistas opened to me in an equally unexpected way. For that I was indebted

to another writer—Alexei Tolstoy. Apparently something in my satirical verses for children had given him the idea that I should write fables.

"You must try," he told me. "It's foolish to dismiss the fable as a dead genre. It should be revived. You're successful with satire. Have a go!"

By way of encouragement in my sudden, difficult attempt, he nominated me (and I was still a young poet) for the All-Union Committee for the Celebration of Krylov's centenary.\* At Alexei Tolstoy's advice I wrote more than 100 fables. It really would have been unjust to regard this trenchant and effective genre as done for. It came back to life rapidly and tempestuously.

I try to work in various genres: I write verses, plays, film scenarios for children and adults, songs, political satire, articles, notes—in fact, everything but novels and short stories.

But most of all I like writing children's verse and satire.

\*

\* \* \*

\*

\*Ivan Krylov (1769-1844)—an outstanding Russian fable-teller.

Here are two samples of Mikhailov's work

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## THE TIPSY RABBIT

---

To Hedgehog's birthday party Rabbit was invited.  
He wore his Sunday suit and felt a bit excited.  
The talk around the board was lively and diverting;  
The food was of the best; the drinks were . . . disconcerting.  
And Rabbit drank a lot;  
He drank so much, in fact, that manners were forgot;  
By midnight he was staggering and reeling,  
And hawling in a voice that shook the ceiling:  
"I'm goin' home! I've had enough!"  
"Dear me!" the hostess said. "Please don't get rough!  
Sit down! You'll fall! You look a sight!  
My friend, you'd better stay the night!  
In such a state you'll lose your way,  
And Lion's in our woods, they say."  
"Lion? Poo! What's he to me?  
I'll handle him quite easily!  
I'll knock him out and flay his hide,  
And fling the pieces far and wide."

As Rabbit reeled among the trees  
He woke the forest with his shouts:  
"Lion? Bah! Not worth a sneeze!  
I've handled plenty of such louts!"  
He filled the air with such an awful din  
That Lion, sleeping in his cave, awoke,  
Came stalking forth, seized Rabbit by the chin:  
"Who's this that's waking honest folk?  
Ah, Mister Rabbit! Drunk, I see.  
I think I'll hang you on this tree."

Poor Rabbit was dead sober now,  
He had to save himself, but how?  
He threw himself upon his knees  
And poured out phrases meant to please:



"I did not mean it—oh, not I!  
 Upon my word, I'd rather die  
 Than do an injury to you,  
 The noblest beast I ever knew.  
 I was . . . you see . . . just now . . . a guest . . .  
 And drank a little . . . like the rest,  
 But all for you—upon my life!  
 I drank to you, your cubs, your wife . . ."

And Lion dread drew in his claws,  
 The whole savage battery,  
 And let the Rabbit go because—  
 The Lion worshipped flattery.

*Translated by Margaret Westlin*

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## HOW THE BIRDS RESCUED LITTLE BILLYGOAT

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Once upon a time there lived an ordinary little goat. Like all goats, he was very stubborn. He always wanted to have his own way. One day he took it into his head to go for a long walk.

"Don't go far," his mother warned, "the sky is darkening, there's going to be a storm."

"No, there isn't," naughty Billygoat retorted and went capering down the path to the far woods.

It was dark in the woods and soon it became still darker. A strong wind sprang up and set the tall pines swaying. A big black cloud hovered

over the woods. Suddenly there was a blinding flash of lightning and then a deafening clap of thunder.

Frightened out of his wits, little Billygoat took to his heels. It seemed to him that the thunder and lightning were after him, for hard as he ran, they were always there at his back. At last the big black cloud ripped apart and the rain came pouring down. Torrents of cold water dropped on poor little Billygoat.

On and on he ran, all the way through the forest and beyond it, across a meadow he had never seen before. He was wet through and

through, to the last hair on his body, and still the rain showed no sign of stopping. When at last the cloud had spilled out its last drop of water and the sky cleared, Billygoat found himself on a small island in the midst of a big lake. All the land round about was flooded. Only the tops of some bushes showed above the water.

Billygoat could not swim. He had no choice but to wait for someone to rescue him. Shivering with cold, he sat down to wait.

After a little while he saw a Pig he knew rowing across the lake.

"Porker, Porker, save me, take me in your boat," Billygoat called.

"It can't hold two," grunted Porker in reply and rowed right past.

"Shame on you! Achoo! Achoo!" Billygoat sneezed twice. He was still wet and he had caught cold.

The Pig disappeared from view and Billygoat was again alone. But not for long. In a moment or two there came loping out of the woods the bloodthirsty robbers, Father Wolf and Mother Wolf. The wind had carried to their Robber Den the scent of wet goat's hair. They followed it and it brought them to the edge of the lake.

The first thing they saw there was poor Billygoat on the tiny island in the middle of it.

"Oho," growled the Father Wolf, "it's a long time since we've had fresh goat meat!"

Mother Wolf licked her chops.

"A tasty morsel!"

"How can we reach him?"

asked Father Wolf. "We might swim, of course, but I don't fancy bathing before dinner."

"Let us run back to the Den and take counsel with our brothers," suggested Mother Wolf. "Billygoat can't run away, it will take a long time for the water to subside."

And the wolves silently turned back into the woods.

Meanwhile Billygoat, all unsuspecting, was getting worried. "Am I to be left here to die?" he asked himself anxiously. "It will soon be night and I see no-one coming to my rescue."

"Quack, quack!" The sound came from overhead. Billygoat looked up and there was the wild duck, Quacker.

"Quack! What are you doing there?" asked Quacker, circling the island.

"Can't you see?" wailed Billygoat. "I am waiting for help. Look how far it is to the shore, and I cannot swim or fly."

"Very well, wait patiently and we will help you." With a flutter of her wings Quacker rose high and flew quickly away.

The news that little Billygoat was in trouble spread through the neighbouring woods, fields and marshes like wildfire. And within an hour all the kind-hearted animals and birds were gathered in a green clearing. The Hares had come bounding, the Beavers had come waddling, the Cranes had come flying. Old Mrs. Heron had brought along two Pelicans who were visiting her before flying south.

Quacker told them how she had sighted poor Billygoat stranded on the island in the middle of the meadow that had become a lake.

"We must help him," she concluded her story, and everyone agreed.

"Yes, we must help," the Hares chanted in chorus.

"We will save him," said the Cranes.

"We will," said old Mrs Heron and looked questioningly at the Pelicans. They nodded silently.

"But how?" asked the Stork, who had just joined them.

"We will build a raft," suggested the Beavers. Being builders by profession, they were always ready to build something.

They all set to work with a will. The Beavers felled a big tree, then a second and a third.

The Hares stripped the trunks of twigs and bark. The Cranes hauled the finished logs to the water's edge and bound them one to the other. Each found something to do to help.

In the midst of all this activity Sparrow suddenly alighted among them.

"I have just seen Billygoat," he twittered, all out of breath. "He's crying and he's hungry, he's had nothing to eat since morning."

"We must feed him!" cried the Hares, as always, in chorus.

"Yes, feed him," agreed the Cranes.

"And well," said the Beavers, going on with their work.

"But how?" asked the Stork.

Old Mrs. Heron said nothing. She only gave her friends the Pelicans a pointed look. They caught her meaning and silently opened their big beaks. Each had a goodly store of fresh fish tucked away in his pouch. That was why they had had to keep silent all the time.

"Quack, quack! Goats don't eat fish. Don't you know that?" cried Quacker.

The Pelicans exchanged glances and quickly swallowed the fish to free their pouches. Two fleet-footed Hares raced away and came back with arms full of fresh carrots and cabbages. The Pelicans opened their beaks, loaded their empty pouches with the vegetables and, taking a running start, flew up and away, with Sparrow in the lead to pilot them. A few minutes later they were dropping the food at Billygoat's feet. Relieved of their loads, the Pelicans turned back to the shore, where the building of the raft was progressing with incredible speed.

But in the Wolves' Den no time was being lost either. Already a pot of water had been put on to boil and knives were being sharpened. The three worst desperadoes, three young Wolves, had each straddled a thick log and were already paddling towards the island where footish little Billygoat was bleating plaintively.

It was lucky that Wagtail flew past just then and saw them. She made straight for the clearing where the faithful friends were working.

"Hurry, brothers, hurry, or you'll be too late," she chirped, circling over the Beavers. "The Wolves are already half-way to the island."

The raft was just about ready by then and so they quickly launched it on the water. The next instant it was already bobbing on the waves and a crew of Hares was setting the sails. Bobtail, the very bravest Hare of all, was the captain.

Now all who had wings to fly with rose into the air. The first to rise were the Cranes. After them came the Quacker, the Stork and Mrs. Heron. They made a circle over the woods, fell into V formation and headed for the island in the middle of the lake.

The Wolves were paddling hard.

"Not far, now," said one, "not far."

"He can't escape us," said the second, "he can't."

"He's ours," growled the third, "ours."

They could not have been more mistaken, for at that very moment, and before they knew what was happening, the birds attacked them. One by one the birds dug their sharp beaks into their necks. The Stork took his turn after the Cranes, the Heron after the Stork. There was nowhere for the Wolves to take cover.

To make matters worse for them, the two Pelicans now came flying down. They flew very slowly because this time they carried a heavy load of rocks which they promptly dropped on the heads of the Wolves.

This was too much for them. Howling with pain, they let go of the paddles to rub their sore heads, lost their balance and fell into the water. They tried to save their lives by swimming back to the shore, but the long-beaked birds gave them no chance. They swooped down on the

three again and again until the last of them sank for good.

The raft reached the island safely. Billygoat was wild with joy. He kissed Captain Bobtail and bugged each one of the crew of Hares.

The Hares lit a fire right on the raft so that Billygoat could get warm and dry.

We will not describe Billygoat's return to his parents. We will only tell you in secret that for two days afterwards it hurt him to sit on his tail. But that was only to be expected.

On the third day Mother and Father Goat gave a party for all who had helped to save little Billygoat. No one was forgotten. All came, even Sparrow and Wagtail. And in the place of honour sat the wild duck Quacker who had been the first to come to Billygoat's aid.

Unexpectedly Porker put in an appearance, uninvited.

"And is there no place for me at your table?" he grunted from the doorway.

"There is place here only for those who know how to help each other in time of trouble," Father Goat said dryly, though politely. "You, I am sorry to say, behaved like a pig." And he showed Porker the door.

The home of the Goat family rang with song and laughter, with the clinking of glasses and the crunching of cabbage leaves until late into the night.

So Billygoat's adventure, which might well have ended sadly, ended happily after all, amidst the gay company of true and faithful friends.

*Translated by Asya Shoyeti*

# Facets of Soviet



# JAZZ

by Vladimir MIKHAILOV

The origin of Soviet jazz does not go way back. The first Moscow Jazz Festival was held as recently as 1962. Despite its youth, Soviet jazz enjoys considerable popularity among music-lovers.

Soviet jazz veteran, 33-year-old saxophonist Alexei Koslov, describes some of the trends in Soviet jazz and talks of his fellow-musicians in a special *SPARK* question-and-answer session.



*How about a bit of history to start with? What can you tell us about that landmark in Soviet jazz, the Moscow Festival of 1962?*

Kozlov: To tell the truth, that festival seems ancient history to me now. The official name—Festival of Improvised Jazz Music—shows just how little we knew of the subject. As if there could be jazz without ad-libbing! And yet, I look back on it all with a twinge of pleasure: it was the first time we left our rather narrow circle and played before the public at large.

*Did you win a prize?*

Yes, I was with one of the two combos that won prizes. Later we

merged into a sextet with pianist Vadim Sakun as leader. That same year our sextet was invited to a Jazz Jamboree in Warsaw. And so we were fated to become trail-blazers for Soviet jazz on the international scene.

In the Warsaw Philharmonic we played our own compositions: *Blues for Nikolai* by Nikolai Gromin, *Swift and Swell* by Sakun, *Great Sovereign Novgorod*—a piece based on a folk motif—by Tovmasyan, and my *Autumn Meditation*.

*How did they go down?*

The reception we got surpassed our wildest dreams. The Polish fans gave us a great ovation, while such an authority on jazz as Don Ellis, whom I consider a really great trumpeter,

gave us a boost in *Downbeat*. He wrote that we were tops at blues and that we played boldly—more so than the other European jazzmen.

*When was the first disc recording of Soviet jazz composition made?*

In 1962, in Poland. The Muza firm recorded our sextet during the Jamboree and issued two discs right after it.

*How about the Soviet firm Melodia—have they produced records of Soviet jazz?*

Yes, *Melodia* produced two LPs after the Second Moscow Jazz Festival of 1965. They included numbers played by several jazz groups. I played in a quartet, and we recorded

Sakun's *Five Steps in Space*, a piece dedicated to spaceman Alexei Leonov, and also my composition called *Suite*.

*Speaking of the 1965 Festival what was the response in the Soviet Press?*

On the whole, the Press reaction was favourable. *Nedelya* named our quartet among the three best groups. The other two were Igor Brii's trio and Victor Prudovsky's quartet.

*I believe you have left the combo and joined a big band?*

Yes, that's right. Several of us got invitations from Yuri Saulsky, the Moscow composer and band-leader, to play with his vocal-and-instrumental orchestra, VIO-66.

*What attracted you to a big*

#### *Sleeves for Soviet jazz records.*



*band? Was it solo parts?*

Partly that, yes. But more important: with a big hand I get better opportunities for arranging and composing. I have made several arrangements of old-time favourites in American jazz and written a few compositions such as *Equilibrium*, a piece for the piano and orchestra, and *Sad Bossa-nova*, my tribute to Brazilian musicians who popularised their national tunes and rhythms.

As for my "lack of loyalty" to combos, I have continued playing with a quartet, under VIO-66. In fact, I led it in 1966 and 1967 at jazz festivals in Tallinn and Moscow.

*There was a long period in 1967 when you did not make any public appearances. Why was that?*

In the first place, I was very busy finishing my post-graduate course at the Institute of Technological Aesthetics. And besides, I felt I needed time off to think over our accomplishments and prospects.

*Did you come up with any novel ideas?*

Well, one. When our quartet reappeared in April, 1968, it was minus piano—until then, a "must" in any quartet. Our new group included alto and tenor saxes, bass and drums.

*What kind of music do you play with your new quartet?*

It's very difficult to describe music in words. But I'll try and sum up our approach to jazz.

Perhaps I should begin by saying that in developing our own style of playing we could not ignore American Negro musicians, those who origina-

ted jazz and those who are prominent in the world of jazz today. And so our technique includes elements borrowed from such representatives of modern jazz as Coltrane, Shepp, Silver and some others.

At the same time, we draw on the style of the earlier period represented by Parker, Adderley and Rollins. So you couldn't say that what we play is hop or hard hop, or even free jazz.

Relying on known forms of jazz, we believe that the most important thing is that it should come from the heart and afford full self-expression. Of course, we realise that full self-expression can be attained only by great, perhaps the greatest, musicians.

We strive towards perfecting our themes and improvisations, making them more intricate, but not to the detriment of harmony. We look for solutions in polytonality and not in dodecaphony, because we find polytonality best suited for self-expression.

*What could you tell us about the members of your quartet?*

In a way, our quartet shows that interest in jazz here is countrywide—I'm the only Muscovite in the group. Vladimir Vasilkov, drums, hails from Ulyanovsk on the Volga. He is a professional musician and will soon be graduating from the Gnesin Music College. He won a prize at the Moscow Jazz Festival of 1966.

Vasilkov is a drummer with a hard-driving beat; his rhythmic patterns are clear-cut and attractive.

Yuri Markin, bass, comes from Astrakhan on the lower Volga. He has had considerable schooling at the Moscow Conservatoire.



*Dmitri Shostakovich, the famous composer, with Alexei Kozlov.*

Last but not least is saxophonist Alexander Pishchikov, who comes from Magnitogorsk in the Urals. Before joining us he played with the Riga Radio and Television Variety Orchestra, and was then a soloist and arranger with Eddie Rozner's big band. Some think that his playing strongly resembles Coltrane's. I'd say that his manner is Coltrane in form, but Pishchikov in essence.

*What's your concert repertoire?*

We pay tribute to the great Charlie Parker, playing his *Confirmation*. We also play some numbers by Ornette Coleman and Horace Silver. But the centre-piece of our programmes is

our own compositions reflecting national traditions, and arrangements of folk tunes.

*A last question, Alexei: what do you appreciate most? Press criticism? Connoisseurs' opinion? Audiences' applause?*

Objective and comprehensive analysis of one's style and techniques in the Press is very important to any performer. And so are remarks by connoisseurs. The most precious thing, however, is the natural reaction of the audience—spontaneous response which tells you that you play from the heart, that your feelings are shared by your listeners.

## Socialism and Religion



*Monks at the  
Pskovo-Pechersky  
Monastery  
on their way  
to prayer*

Attitude to religion is the private affair of each citizen. The Soviet State does not interfere in the affairs of the Church and the Church does not interfere in the affairs of the State. This is the basis of relations between the Church and the State as laid down by law shortly after the Revolution.

Affiliation to one religion or another has ceased to be a source of social privilege or, on the other hand, social restriction.

Before the Revolution the Russian Orthodox Church was the official religion of the country, and the people of any other faith were subject to discrimination.

No passport, no population census and no questionnaire of any kind contains any item bearing on religious faith.

Guarantees of religious liberty are

*Left: neat rows of praying Moslems in Tashkent, Soviet Central Asia*



*Right: Roman Catholic Church at Palanga, Lithuanian Republic*

*Moscow Synagogue, one of about 100 in the Soviet Union*



*Buddhist temple in the Buryat Autonomous Republic, which borders on Mongolia*



laid down in Article 124 of the Constitution of the USSR, which says "In order to ensure to citizens freedom of conscience, the Church in the USSR is separated from the State, and the school from the Church. Freedom of religious worship and freedom of anti-religious propaganda is recognised for all citizens."

The Presidium of the Supreme Soviet (Parliament) of the Russian Federation, in a special decision, has banned all discrimination against believers in religion. Work, educational or any other discrimination, it states, which deprives citizens of advantages or privileges that are due to them by law, and also any other restrictions on a citizen's rights stemming from his or her attitude towards religion, are punishable as crimes.

Similar laws have been adopted by the supreme bodies of government in all Soviet sovereign republics.

Among the religious denominations that have adherents in the Soviet Union, the Russian Orthodox Church is the largest in size of congregations, number of priests and extent of church property.

The Russian Orthodox Church has been in existence as a separate church since 1448. At present it is headed by the Patriarch of Moscow and All Russia, Alexius. The Patriarch has under him the Holy Synod, with the most authoritative metropolitan as members.

The Russian Orthodox Church has communities abroad—in the United States, Canada, France, Bulgaria and other countries. The Georgian Church, which is Greek

Orthodox, has its own Patriarch and exists separately from the Russian Church.

Coming next in membership is Islam, the Moslem faith. Most Moslems belong to the Sunnite branch. There are also Shiite Moslems, mostly in Azerbaijan.

Roman Catholics are comparatively few in number. Most of them live in Lithuania, Latvia, Western Ukraine and Byelorussia.

In Estonia and Latvia there are many Lutherans.

Where there are sizeable Jewish communities there are synagogues. Altogether the Soviet Union has some 100 synagogues and nearly 300 minyans, prayer houses. Moscow also has a yeshiva—a place of learning that trains rabbis.

Armenia has the Armenian Apostolic Church. Its head is the Patriarch Catholicos of all Armenians, who lives at Echmiadzin, an ancient ecclesiastical centre, near the capital of the Republic, Erevan. The Armenian Church has many dioceses in other lands.

#### **Protestant churches**

The Evangelical Christian Baptists constitute the largest of the Protestant churches in the USSR. There are also communities of the Reform, Adventist, Molokan, Mennonite, Methodist and other churches. But they are small.

In the Asian part of the country and the Autonomous Republic of Kalmykia, on the Volga, there are groups of Buddhists and Lamaists. Buddhism came to this country from

Tibet in the seventeenth and eighteenth centuries, and there are several Buddhist monasteries in the USSR.

All the religious associations, large and small, enjoy equal rights, publish ecclesiastical journals and books. Religious centres and societies have the right to rent property, construct and buy buildings for religious purposes and set up workshops to manufacture religious objects. Sites are given to them free of charge.

Many of these centres have their own places of ecclesiastic study. In addition, they may send students for study abroad.

Incomes of church and religious organisations are derived from voluntary donations by believers and collections made during religious services. They pay no taxes to the Government.

The Government respects the feelings of believers, and they reciprocate by respecting Government laws.

No-one may shirk civil duties or military service on grounds of religious convictions. No-one in the Soviet Union is persecuted for his religious beliefs, but if a believer violates Soviet laws he is held responsible in the same way as anyone else.

The Government bans the activities of religious groups or sects which, under the cover of religious motives, engage in activity which is against the laws of the State, or preach a religion which is connected with the moral and physical corruption of people, or infringes civil and social rights.

## The Russian Orthodox Church in new social conditions

by Nikolai ZABOLOTSKY

Assistant Professor  
of the Religious Academy

*This article is condensed from the Journal of the Moscow Patriarchate, official organ of the Russian Orthodox Church. The magazine, which first appeared in 1943, publishes messages and edicts of the Patriarch, theological articles and sermons. It mirrors the life of the Russian Orthodox Church in the Soviet Union.*

The 1917 Revolution was an event of great significance to the Christian. He did not stand aloof from it. He participated and made his contribution.

For Christians, the revolutionary process has not been an easy one: many lost their belief; some became embittered in their conservative adherence to the old social regime, thereby harming their Church. The most remarkable fact, however, is that the Christians in this land of socialism have become builders of a new life.

The Revolution in October 1917 presented the world with a new social form. In the course of its existence, through many trials, a new democratic structure was evolved, a morally just social order which is on the road to ideal human relations. This alone endears the new world to the Christian and urges him to work for the benefit of this world.

Characteristically enough, the patriotic aspect has become important to our Orthodox believer. A member of the Church is organically related to his country and his people. Therefore every action undertaken for the benefit of the people and the Motherland is close to the heart of the devout.

Patriarch Sergius, while Metropolitan in 1927, wrote, "We wish to be Orthodox and at the same time feel the Soviet Union to be our civil country, to feel that its joys and triumphs are our joys and triumphs and its setbacks, our setbacks."

This is why the ideological opposition of believers and non-believers does not destroy the great patriotic brother-

hood of the Soviet people, nor their moral and political unity.

At the beginning of the Revolution the qualitative changes which had taken place in the Church after the overthrow of the autocracy were remarked upon by religious thought thus:—

"Everything is paradoxical and contradictory in the world. In the Christian, Orthodox State, the holy Czarism, the Christian Church was enslaved and oppressed and could show no signs of activity. Only in a non-Christian, secular State, in a democratic republic, can the Church at long last feel completely free, and churchmen be active. . . . May churchmen be grateful to the revolution—it alone has purified the Church. . . ." (*Russkaya Svoboda*—Russian Freedom—1917, No. 2).

Today it is pertinent to recall these words in order to name at least three aspects of present-day Christian activity which have been favoured by the course of revolutionary events.

The conditions which were created as a result of the Socialist Revolution have made possible peace-making, ecumenicity (movement to unify the Christian church), and synoecism (community, unity). These three fields of activity clearly demonstrate the freedom to spread religious faith through acts of love and freedom of church organisation.

Statements and thoughts on peace are a basic theme in the work of a great many churches and Christian leaders at the present time. The peace-making activity of the Russian Orthodox Church is known widely. In



connection with this activity, which Russian Orthodoxy associates with other tasks of Christian service, it is important to remember that the birth of the new Soviet social and political order was preceded by an appeal for peace.

Ecumenicity is considered in many quarters to be a Christian reaction to the events of the Revolution. However, it is important to note the positive role of the Revolution in relation to ecumenicity, i.e. that the Revolution destroyed national-religious privilege and isolation.

By creating a new, morally just society, the Revolution has presented a positive challenge to Christianity. Indeed, in the absence of national, cultural and religious discrimination, the principle of freedom of worship acquires a new essence. Hence mutual respect is developing among Christian groups, which are becoming involved in the ecumenical movement.

The elimination of autocratic chauvinism as the result of the separation of Church from State made the age-old strife between different religions senseless.

Practical secularisation, which followed the Revolution, has led to the freeing of the Church from unity with the secular authority, a unity which had been imposed on it despite the Lord's behest concerning the difference between what was the Lord's and



what was Caesar's. On the other hand, the moral values being created in socialist society form a basis for an extensive, many-faceted dialogue between the State and the Church.

The synocism of the Church is also favoured by the socialist development of society. Christian teaching on the individual and his relations to his fellow men cannot ignore the concepts of the individual and society, which are being evolved in revolutionary thinking.

From this follows the participation of Christians in democratic development, their concurrence in the need for the harmonious, all-round development of the individual and the strengthening of his connection with society, in the same way as a Christian participates in the struggle for the freedom and independence of all people and all peoples of the world.

Along with the practical, pragmatic assessment of the existence of the Church in new social conditions, it is worthwhile mentioning what may be termed "coming together".

Theology tries to comprehend the Revolution in order to gain a right to pragmatism, which is established in practice by the very fact of the participation of Church members in a socialist society. However, herein lies a difficulty which is associated with the difference in thinking.

Christianity cannot agree to coming closer to the ideological fundamentals of socialism, which would amount to a virtual renunciation of religious convictions. And similarly, the

philosophical view of history as the area of guidance of Christ and the life-giving activity of the Holy Ghost cannot be accepted by the ideology and practices of the Revolution.

Therefore theological "coming together" has to be considered an open question. Nonetheless, freedom and equality, personal modesty and self-sacrifice, the purity of family relations, the chastity of youth, work for social benefit and many other ideals of socialist development lend themselves to consideration by Christians in the light of the Gospel according to St. Matthew and St. Paul's Epistle to the Romans.

Also, though there is a difference of approach to problems of evil, there is a common determination to fight evil in the name of the triumph of good.

Using different weapons, Christianity and socialism fight evil in order to destroy it. In other words, it is possible to co-operate in instilling virtue and fighting sin.

Pragmatism and theological comprehension proceed from the reality of the existence of the Church in the new State born out of the revolutionary events of 1917. The principal asset of this society is man.

The merit of the Revolution is that it has elevated man in his dignity, made possible his all-round development, and called upon him to participate actively in the creation of a new life and in service to society.

The man with religious convictions has also found a place in social development.

## HOW RUSSIAN 'TRACK AND FIELD' BEGAN

*from the weekly NEDELYA*

"When I was young," said the very old man, "sports weren't subsidised as they are today. We never had it so good as you lads. Why, I was getting 25 roubles a month, but I had to pay out 15 roubles for a membership card for a Petersburg sports club. And on top of that, 50 kopecks every time I wanted to take part in competitions."

Yes, times have changed since Russian "track and field" took its first fumbling steps back in 1888, when some enthusiastic youngsters in St. Petersburg organised the Amateur Runners' Club.

They took part in their first international sports meeting on September 27, 1890, competing against an English club named Arrow. The programme included a 100-yard sprint and a half-verst sprint (one verst: 0.6629 miles). Wilkins, an Englishman, won the latter event, and two Russians, Moskvina and Ernits, tied for first place in the 100-yard sprint with a time of 12 seconds flat.

Variety is the spice of life, and the Russians added variety to the programme by staging heats and including bandicap starts. In the 25 and 50 sagine heats (one sagine: 7 feet), each competitor raced the clock three or four times and the lowest time total determined the winner.

The Amateur Runners' Club grew.

Its programme expanded to include skiing, ice-skating, bicycle-racing, wrestling and swimming.

In 1893 the first Russian skiing meet was held on the frozen River Neva. That same year the club changed its name to the Petersburg Club of Amateur Sportsmen.

The aspiring athletes had no stadium and few facilities for training. Moreover, newspapers condemned the new "sportsmania" and thundered that it was indecent and uncultured to compete in public wearing only shorts and singlets.

Many determined young sportsmen, in order to avoid trouble at work, took part in competitions under assumed names. This was even the case with Pyotr Moskvina, one of the driving forces in the club, who went to the starting line under the name of Morin.

Finally, in 1896, the club was officially recognised by Government authorities. But subscriptions were high and members paid heavily for the privilege of engaging in sports.

Despite these difficulties, the club thrived. It drew up rules and regulations, and on its initiative the All-Russian Amateur Athletic Society was formed. In 1908 the club laid out a sports field and cinder track, and on it the first Russian "track and field" meet was staged.

# SIBERIA

from the newspaper  
*Ekonomicheskaya Gazeta*

From Mount Mayakova in Novokuznetsk, the Siberian steel city, it is possible to see Siberia's past, present and future.

First there are the ruins of an old fort built in 1618, and farther down the hill the old pre-revolutionary city lies dwarfed by the newly built housing estates. All that remains of the old city are some cramped wooden dwellings, a few shops, a distillery and an old brewery.

They represent all that was achieved in three centuries on this fabulously rich land, where the peasants cut coal to warm their homes right in their own cellars, where the taiga stretched to the far horizon, and many of the hills were solid iron ore.

Beyond the old town is a forest of chimneys belonging to the aluminium

works, the ferro-alloy works and a number of others. To the west is the Kuznetsk steel works. Opened in 1932, the Kuznetsk plant has produced 100 million tons of steel, and its present annual production is greater than the all-Russian figure in pre-revolutionary days.

From Mount Mayakova, tip-up lorries can be seen bustling back and forth at the construction site of the giant West Siberian Iron and Steel Plant. Already the first of its blast furnaces are in operation.



At the beginning of this century a General Andrievich wrote his *History of Siberia*. He also tried to foresee the future. He believed that Siberia was utterly useless, and described it as



"the world's greatest wilderness... Three centuries of its history have borne out that truth."

At the same period another Russian, Gleb Krzhizhanovsky, who had been exiled to Siberia, was working as an engineer at the Taiga railway station. There was no roundhouse for electric locomotives then, and the station's only claim to fame was its Siberian dumplings made with bear meat, the speciality of the buffet. The local constable reported that "suspicious individuals" gathered in Krzhizhanovsky's home.

Twenty years later the Soviet Government gave this man the task of drafting a plan for the electrification of the country, with industries sited as close to the sources of raw material as possible.

Thirty years later, electric locomotives driven by power generated at the great Siberian hydro-electric stations sped through the taiga.

In the 50 years of Soviet rule about 100,000 million roubles have been invested in Siberia.

General Andrievich would have been surprised to read a recent article in a foreign newspaper, beginning, "Again in that incredible Siberia..." The article described a very important experiment carried out by physicists at Novosibirsk, which marked another big advance towards the harnessing of thermonuclear power.

It may well be that this problem of the century will be finally solved on Siberian soil, and Siberia will give mankind the source of energy which will make it omnipotent.

*This jolly trio  
are building  
a huge blast furnace  
in the Siberian town  
of Novokuznetsk*



I want to tell you about the city of Novosibirsk, where I spent my childhood. At the turn of the century this city was not even marked on the maps, and now it is proudly known as the Siberian capital—the metropolis of a vast territory. It was in the period of its stormy development, which began after 1919, that I first laid eyes on it.

## Forty years after

by Georgi KUBLITSKY

from the magazine ZNAMYA

In the summer of 1926 our family was in the throes of moving from Krasnoyarsk to Novosibirsk.

Krasnoyarsk was then still rather in a state of somnolence, hardly touched by the transformation the country generally was undergoing, whereas only a short distance away the Siberian capital was bustling with life. Everyone was agog with the idea of going to Novosibirsk. Our neighbours left and then, in 1926, we were on the move, too.

As we approached Novosibirsk, there was no sign of tall buildings or beautiful churches. As our train

made its way towards the station, all I could see was a growing village, sprawled along the railway lines and looking not in the least like a real city. The houses were not of the kind you would expect to find in any self-respecting village. They were simply huts of fresh yellow boards, hastily thrown together anyhow.

The railway station was even worse than the one at Krasnoyarsk. And it was overflowing with people, many of whom had crowded into its narrow halls to find temporary shelter while they awaited more permanent homes.

In his *A Month in Siberia*, a little book of his impressions of a journey to this region, Anatoli Lunacharsky, then Commissar of Education, gave the title of "Sib-Chicago" to the chapter on Novosibirsk. He wasn't poking fun at the city, or criticising it—he wrote of Novosibirsk with great warmth of feeling when he said,

"This original city, which has grown into a capital boasting 200,000 people, is rushing onward non-stop like a real Siberian Chicago."

Yes, in 1928, when I finished school, "Sib-Chicago" had 200,000 people. Nevertheless, although surveyors were busy at the first plant construction sites, and rumours were rife of a giant plant in construction near Krivoshchokovo, we youngsters were trying to make up our minds whether to go on to study in the old university town of Tomsk, or in Omsk, where the Siberian Academy offered training for agricultural specialists.

We could, of course, have stayed in Novosibirsk, but the Institute of National Economy, Novosibirsk's first higher educational institution, was to be opened only a year later, in 1929.

Since then ten, twenty, thirty, forty years have passed—and here I am

*In the wilds of Siberia: shopping centre and the Golden Valley Hotel in Scientia Town (Acadamgorodok), near Novosibirsk, West Siberia*



*In old-style Siberian costume is Yalana Dargacheva, an archaographer, who specialises in the description and classification of antiquities, looking at some of her finds*



again on my way to my old alma mater.

Siberia is now nudging Europe. Novosibirsk is practically next-door—only a four-hour flight away. If you don't like flying, take the *Sibirvak* express train, which covers the distance between Moscow and Novosibirsk in only two days.

I chose this train because it does not run on the main Siberian route, but dips to the south for quite a stretch.

#### Southward and northward

Ever since ancient times, towns and villages have been built along roads and waterways. Old Siberia was mostly wasteland, and only where the great Siberian road passed in the south and along the banks of the rivers Ob, Tom, Irtysh and Yenisei, were there scattered dots on the map, indicating towns.

Siberia seemed to be composed of narrow, sparsely populated strips of territory. In time, this vital and only artery connecting Europe with Siberia was supplanted by a railway, which helped to attract hundreds of thousands of settlers to this region.

But what lay beyond that narrow strip of populated territory hugging the great Siberian railway?

Vladimir Lenin spoke of the boundless expanses lying south of Omsk and north of Tomsk, where patriarchal order still held sway and where savagery and semi-savagery predominated.

At the turn of the century Lenin travelled through the places now traversed by the *Sibirvak* express,

which was speeding us onward. Along the way he wrote of his impressions to his mother: "... Bare and remote steppe. No habitations, no towns. Very rarely a small village, and now and then forests, but the steppe is everywhere. Snow and sky for a whole three days."

Through the window we suddenly began to get glimpses of a huge factory settlement with three smoking stacks reaching to the sky. Then the train changed course into the steppe, and not a single passenger expressed surprise or was interested enough to ask what kind of plant it was or where it was that the train had branched off.

What was there to be surprised about? It was quite a usual sight.

The passengers' reaction would have been quite different had they suddenly caught sight of an old springless carriage with a troika of black-maned horses harnessed to it. That would certainly have caused some discussion.

Yes, Siberia has not only come closer to Europe; it has broadened out. It has grown and developed far from the old inhabited strips. Former uninhabited wastes are now occupied by airfields, highways, villages, towns, wheatfields, mines, schools and timber lands. And if one could see far beyond the horizon, a stirring and majestic picture would meet the eye from the extreme southern boundaries to the coast of the Arctic Ocean.

To the south of the railway on which we were travelling, and to the south of Omsk, lay vast areas of

virgin land. This great granary under severe Siberian skies did not yield easily to man.

Dust storms swept the enormous wheat fields, hosts of weeds strangled the sprouting shoots. New types of machines and equipment had to be invented, and new agricultural methods meeting the needs of the Siberian and Kazakhstan steppes had to be found—and immediately. Now, with the help of science, the grain yield will be growing yearly.

#### Assault on the oilfields

To the north of the railway line, north of Tyumen and Tomsk, lies new virgin land—a territory of vast oilfields waiting to be developed, one of the greatest geological finds of the century.

Here in the north, people and machines are taking part in a great frontal offensive on perhaps the most abundantly stocked and most difficult oilfields ever found. Over a vast swampy area 600 miles wide, an army of young drillers have sunk wells in quagmire.

Every bolt used, every loaf of bread, has had to be lowered to the workers from helicopters. Roads have had to be hacked through snowbound virgin forest, and cross-country vehicles have had to cross terrain littered with fallen timber.

People have had to be on guard against spring floods which destroyed their huts, demolished huge snowdrifts and shattered pipelines. But through this land of swamps there now stretch railway lines which will connect the Trans-

Siberian railway with Surgut, until recently a remote village and now an important oil centre which in three years has trebled its population.

Oil is already on its way through the first pipelines. The main line debouches near Omsk on the Siberian oil route.

New towns have been built and are under construction in the taiga and tundra for the oil workers and engineering staff. To the north of Tomsk, the Bachkar area is lined up for further feats. There colossal iron ore deposits, estimated to be the largest in the world, were recently discovered.

Oil workers and construction workers will have to bring new oilfields into production and build the most northerly gas pipelines in the world, to supply gas to Leningrad and cities of the European north of the country. They will also have to construct pipelines to take Siberian oil to the east and the west.

Perhaps in the not too distant future this system of pipelines will link up with the famous *Druzhba* (Friendship) pipeline taking oil to the European socialist countries, and perhaps, too, some of the oil will finally flow the other way, towards the Pacific coast.

Everything is hustle and bustle to the south of Omsk and the north of Tomsk. Often it means gruelling toil for people, but it's the kind of work they can put their hearts into, knowing how important it is to their fellow men.

Levelling off on the plain after

*continued on Page 90*



*Once people  
tramped for months  
across Siberia's  
icy wastes—  
today they are  
more likely  
to go by plane*



*A television  
reception station  
at Novosibirsk,  
one of a chain  
in Siberia,  
where TV  
is now widespread*

leaving Omsk, our *Sibiryak* shot off at headlong pace like a jet plane picking up speed for the take off. Now and then we caught glimpses of passing trains. We hurried through huge marshalling yards between trains coupled to electric locomotives, and I got the impression that this section needed at least eight parallel tracks to cope with the movement of freight between the central regions of the country and Siberia.

The *Sibiryak* approached Novosibirsk just before daybreak. Long before we crossed the bridge spanning the River Ob, the outskirts of the city, with broad asphalted streets, came into view. Factories loomed huge, and the fiery flux from foundries lit up the sky.

Everywhere there was evidence of the concentration of heavy industry, the mighty backbone of the huge city, its glory, its power and its support.

#### Street I used to know

That evening I met Isaac and Valya, two of my former classmates. As we wandered about the Novosibirsk streets in the warm Spring wind that made the poplar branches sway, I found very little left to remind me of old times, when people dreamed hopefully of having an unpretentious workers' club, organised groups to wipe out illiteracy, or laid the foundations of the first power station. I had difficulty in recognising little islands of familiar places in this big, noisy city.

Past the department store, off to

the side of the Avenue, I came across the Novosibirsk of the twenties, with its little one-storey log houses enclosed in quiet little yards and with front gardens shaded by poplars run wild. It was breathing its last. This whole district was to be torn down and replaced by modern buildings and amenities.

It is a city of eternal change and development: forty years ago it was in a state of feverish construction and creation, dismantling everything old and dilapidated as it tore along, with dozens of blocks of flats built within a month—and they were still at it today, even more so. In a few decades it had accumulated a million people, and was far ahead of its neighbours. In doing so, it had not grown old or exhausted itself.

And so this goes with the rest of Siberia, stretching out from Novosibirsk towards the horizon in every direction, through thousands of miles of taiga, mountain ranges and steppe. Something new is born here every day.

Near the log tower of the ancient Cossack jail at Bratsk, the giant dam of the hydro-electric station has been built; the path taken by deer on their way to the water is now crossed by a railway; a city is under construction where, a few years ago, a little thin blue line on a map marked a mountain stream trailing its way across an otherwise blank space.

As it is Sunday, today's programme is an outing to the Ob Sea. My friends are taking the longest route there, so that we can see more.

We met at the city centre. on

Krasny Avenue. It was a warm, sunny day, more like May than April. On a corner, three Uzbeks stood screwing their eyes up in the sun, in front of cardboard boxes full of crimson and yellow tulips they had brought by plane during the night.

Krasny Avenue's broad pavements were crowded with people, some wearing summer coats and others with no coats at all.

As my friends pointed out the sights, Valya said he was in love with it all, and took offence when Isaac remarked that the "flashy" appearance of buildings in Krasny Avenue was a kind of visual aid for people studying how fashions and tastes in architecture change. Valya said thousands of streets in the world could be looked at in this way, declaring firmly that Novosibirsk was a very fine city.

His mother and sister live in Moscow, and after the war he went there to live with them. Although he had an interesting job, he stayed for only a year.

"I was homesick, Georgi," he said to me. "Everything was all right, and at the same time everything was just no good, and I couldn't stand it. Just look at their winter! Rain and slush! I got so homesick for Siberia I packed up and left. Everything seems so much simpler here. I just belong here, that's all."

He stopped speaking to look at me. "What's so funny?" he demanded. "What are you laughing at?"

But I wasn't really laughing. My mother was just like that. And my

sister, too. You couldn't get them to leave Siberia for anything. And they were finally laid to rest in their beloved Siberian earth.

We reached the Ob Sea at last. The hydro-electric station dam had blocked off the Ob, one of the four greatest Siberian rivers—at high flood point it carries almost as much water as the Mississippi.

In a week or two the Ob would come to life, the river fleet would leave the backwaters and hoist the navigation flag. Then the waterway would lead south to the Altai and north to the fishermen and oil drillers.

Meanwhile the dam was the borderline between winter and spring. Down below the concrete wall the water seethed and boiled as it escaped from the turbines—it was flood water, alive and noisy and gay, and the gulls hung low over it.

High up over the top of the dam wall the ice still lay inert—the water was in no hurry to throw it off and it stretched, white and blinding in the sun, towards the horizon. Anglers crouched over their holes in the ice, spending probably their last Sunday of the winter ice-fishing.

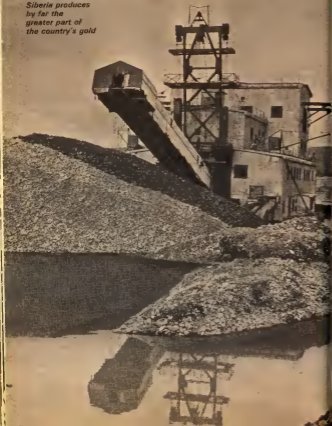
#### Land of giants

In January 1924, there were only five iron-and-steel plants in Western Siberia, with a monthly output of 32 tons of pig iron, 11 tons of cast-iron goods, 450 ploughs and 870 spare parts for agricultural machinery.

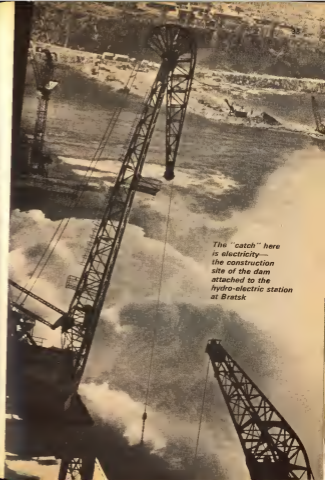
continued on Page 94



*This dredger  
is fishing for  
a valuable commodity—  
Siberia produces  
by far the  
greater part of  
the country's gold*



*The "catch" here  
is electricity—  
the construction  
site of the dam  
attached to the  
hydro-electric station  
at Bratsk*



The people of Novosibirsk began to build their first big plant in 1930 on the opposite side of the river among the birch groves near the village of Krivoshechokovo. Workers came from all over Siberia to help, camping on the swamp which had to be drained and filled in with the aid of nothing but spades and horse-rakes. The construction of this plant, the *Sibselmash*, was the beginning of the Kirov district on that side of the river. Each year saw new advances in building, with one giant following another.

With this movement came the need to establish design and research institutes and educational centres. Karl Marx Avenue was laid out, wide and attractive. The House of Soviets reared up, and across the river a really big industrial town grew and developed, much larger than the old "Sib-Chicago".

The term "district" didn't fit it any more, so it came to be called Kirovka.

Kirovka is a mass of giant enterprises. In Novosibirsk, it is true, you can see factory chimneys everywhere, but the industrial heart of the city is Kirovka.

Foreign visitors usually look over the Yefremov plant, built during the war. A machine tool bearing the Yefremov trade mark may be as big as a whole factory once was. It may be as high as a three-storey house, and the part it processes may be 40ft. long and weigh 100 tons.

Take a Yefremov press. It may have a pressure of up to 30,000 tons. Some of the nuts used in

assembling it weigh 1,500lb. each. And in 1924 the monthly output of cast-iron goods in the entire region was no more than 11 tons—equal to 16 of those nuts!

The average age of the giant Siberian plants is 20 years, so they could be called youthful. The electrical engineering plant, only 15 years old, produces generating equipment for power stations, using the latest techniques. And the annual capacity of the generators produced here almost equals the total capacity of all generators produced by all the plants in the Federal Republic of Germany.

This plant has supplied the largest power schemes in Siberia with their machinery, including the hydrogenerators at Bratsk. A Siberian trade mark will also be seen on the equipment of the new, Saratov hydro-electric station on the Volga.

It is usual to speak of Novosibirsk as a city of machine-builders, but now this is only partly true. But no-one except perhaps the statisticians could be expected to list all that the hundreds of factories here manufacture, in dozens of fields of modern industry.

#### **The joy of my generation**

My generation of Siberians has had a unique experience. In the early post-revolution years the new Siberian history began to unfold before our eyes. The freedom, the scope, the ability to dream, the ability to think on such an unprecedented scale awakened the country.

After the first impulse had been given and the first bold plan sketched out, captivating vistas were revealed and the rest just rolled along. Siberia was on its way!

Long-forgotten schemes were brought to light. Dreamers who loved their country were given new heart, and the doors were flung wide open for people of bold, imaginative thought.

Construction on an unparalleled scale was begun, a scale which demanded its own new criteria. Mineral riches of fairy-tale grandeur were there, the expanse of the taiga was measureless, the energy of the rivers beyond calculation.

The world began to see the full potential of Siberia during the war, realising that on the other side of the Urals something really new and unprecedented had been created, a tempered steel spring of formidable power.

Since then the fame of Siberia has continued to grow.

It is only force of habit that makes us still use the phrase, born of the time when Siberia had no present worthy of consideration, that "Siberia is the country of the future". The fact is that Siberia's present has already excelled all former ideas of what the future could bring.

After travelling through many countries, a visitor to Siberia has said:—

"Nothing is stationary here, everything is on the move, life is boiling and surging ahead with swift impetuosity. You can expect change

on every street corner, every little plot of land is bursting with vital energy.

"In area Siberia is one-and-a-half times the size of the USA, and even now has an effect on the fate of the world with the weight of the steel and coal it produces. By the beginning of the 21st. century it may head the list of world producers.

"Siberia enraptures, entices, frightens and amazes. Fairy-tale-like and boundless, it already exists. And he who knows nothing about it knows nothing of the future of our planet."

It would not be surprising to hear a Siberian poet express himself in this way. But these are the words of Pierre Rondière, a Frenchman from Paris. It is said that the French are given to expressions of rapturous delight. So let us weigh the matter more deliberately. What is Siberia?

It is the greater half of the territory of the Soviet Union, containing more than three-quarters of its natural resources.

Four-fifths of all that natural, inexhaustible energy which may be utilised by the turbines of hydro-electric stations flows in the rivers of Siberia.

Siberia boasts nine-tenths of all the country's coal deposits, half of its iron deposits, three-quarters of its timber lands. Diamonds and precious metals. Oil—not a sea, but a whole ocean of it. Siberia is like a colossal island floating on oil.

It is hard to imagine the future of our planet without Siberia.

## Figures tell the story

Population of the biggest Siberian cities: January 1, 1967

Novosibirsk	1,064,000
Omsk	774,000
Krasnoyarsk	578,000
Novokuznetsk	493,000
Irkutsk	420,000
Barnaul	407,000
Kemerovo	364,000
Tomsk	324,000
Prokopyevsk	290,000
Tyumen	240,000
Ulan-Uds	227,000
Chita	203,000
Angarsk	183,000
Norilsk	129,000
Bratsk	122,000

\* \* \*

Siberia's coal deposits are estimated at 7,500 million million tons—more than in all capitalist countries taken together.

The Kuznetsk Basin (known as Kuzbas) in Western Siberia is one of the USSR's largest coal regions, with more than three times as much coal as the Donbas in the Ukraine.

In Eastern Siberia, in the Kansk-Achinsk Basin, the country's third largest coal region is being developed. Coal there is cheaper to mine than elsewhere, as it lies almost on the surface and can be worked by open-cast methods.

In recent times large deposits of oil and gas have also been discovered in Siberia, including the world's largest to date in Western Siberia. This year Siberia will produce more oil than

Baku, the traditional oil-bearing region in the south, which has 150 years of development behind it.

The combination of vast hydroelectricity sources and unique deposits of compound ores and other minerals will, in the not too distant future, turn Siberia into the world's biggest producer of copper, aluminium, nickel and cobalt.

In the post-war years, big hydroelectric stations have been built in Siberia. They include those at Novosibirsk on the River Ob, at Irkutsk and Bratsk, on the Angara, the latter having a capacity of 4.5 million kW. A number of others are under construction.

In 1970 the world's biggest hydroelectric station will be put into commission at Krasnoyarsk, on the Yenisei. Its capacity will be six million kW.

Siberia and the Far East account for four-fifths of the Soviet Union's timber resources—these regions have 1,800 million acres of forest.

There are now 26,000 research workers in the Siberian branch of the USSR Academy of Sciences. A "science town" (Academgorodok) was built near Novosibirsk ten years ago, and a second academic township is now being built near Irkutsk.



*The Novosibirsk Opera and Ballet Theatre, one of several theatres in the city*

*Fishing for the local version of tiddlers by the man-made Ob Sea, Western Siberia*



# Spirit of Youth

by Ilya ALTER

*from the newspaper KOMSOMOLETS, TADJIKISTANA*

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Young people came from all over the Soviet Union to help build the world's mightiest (4,100,000 kW) hydroelectric station at Bratsk, on the River Angara in Eastern Siberia. It took people of a special kind to stand up to the severities of life in the wild taiga, and in this article the author gives revealing glimpses of their character.

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Just after the thaw, in May 1954, a State Commission left Irkutsk in a launch, looking for a likely site for a hydroelectric station on the River Angara.

Finally they stopped at the village of Padun, deep in the primeval forest of pine and larch. Here they weighed the pros and cons, and Professor Vasilenko, chairman of the Commission, signed a report stating,

"The Padun rapids provide the best site for the hydroelectric station."

The following winter, trail-blazers set out to conquer the wilds, to establish a base for the builders of the mighty dam. With his bulldozer, Vladimir Korobkov was the first to clear a way across the Angara ice to the Padun rapids, and Boris Minkin followed with a team of carpenters. They lived in tents, and Boris

Mikhailov set up a primitive diesel generator to provide them with electricity.

The first log hut was built in March 1955 by Alexei Sorokin's team of carpenters. This inhospitable land, with frosts of 50 and more degrees Fahrenheit and piercing winds, was at last beginning to yield to these daring people.

Early in 1956 the cliffs called Parseyna and Zhuravlinaya Grad, forming the walls of the rocky gorge cut by the Angara at Padun, were blown up, the heavy debris sinking into the river to form the first stage of damming operations.

More builders came. Beyond the perimeter of their settlement, the taiga crowded in on them, dark, cold and threatening.

### An order disobeyed

One Wednesday there was more than 50 degrees of frost. Outside, the trees could be heard splitting with the terrible cold, and the ground crackled. The radio warning came: "Attention! Attention! Stop all outdoor work! To go outside is strictly forbidden!"

The boys gathered in their sleeping quarters, smoking dejectedly. Here they were in the middle of the week, ordered to cease work, work of a kind that admitted no delay.

Anatoli Legkodymov threw his cigarette end into the stove and pulled on his fur coat. Others called on him to wait for them, and soon three men left. No one asked why. Another three left, again without questions.

Forty minutes later the door opened and the first three to leave

tumbled inside in a cloud of steam. Their mates helped them out of their coats and pulled off their fur boots and masks. Out went another three men into the frost.

It was a workday, after all. And so was the next day, and the next but one.

But an order had been disobeyed.

"Perhaps it was disobedience. But it shows the character of the Bratsk builders," Mikhail Gorokhov noted in his diary.

### Dmitri's road

I met Dmitri on the road—I had been told he was perhaps not a hero, but he was a remarkable fellow, and likeable.

He was driving at top speed and he turned to me to say, "On these roads, you can either drive flat out or dead slow. I like speed."

He went on, "You're a journalist and I was too, in a way. I once served on a ship where the captain was a sort of pedant—special brand. He got his superiors to believe that he wanted to raise our cultural level, but all he really cared about was a tick in the report.

"We had to listen to the tedious lectures he read to us from notes. We all felt like slipping away, but the cunning captain thought up a ruse. When we collected in the club-room to see a film, he ordered the door to be locked and posted a couple of hefty fellows to keep us inside. Meanwhile a lecturer appeared on the stage.

*continued on Page 102*

*How much colder will it get?  
Meteorologists take readings  
on the ice-bound Ob Sea*



*Lake Baikal, the world's deepest  
lake, which has many unique  
fish and animals*

"I described the scene humorously in our wall newspaper. Then there was a big fuss! I was even accused of trying to undermine the captain's authority. But my article was judged the best in a competition of the fleet's wall newspapers. The captain had nothing to say—they discharged him soon afterwards."

He fell silent as he negotiated the rough road, up hill and down dale. Dmitri likes the open road, and the more mountain passes and perilous descents the better. As soon as he reaches a level stretch he changes into high gear to save the engine for the more difficult patches.

He began to tell me about his experiences as a driver.

"The roads around here are pretty difficult," he said. "I once got into a bad fix with a Land Rover type of vehicle perched on the brink of a steep drop. I revved up to back out, but still she slipped forward. My three passengers jumped out, but it made no difference: the vehicle seemed to be done for."

"According to regulations I should have abandoned it, and as I had witnesses I was on the safe side, but I decided to keep trying. I turned the wheel all the way round, shifted into second gear, and gave it the works. And back she came! As I said to myself, 'You're a lucky devil, Dimka!'"

In the ensuing silence I wondered about Dmitri's liking for this risky kind of life. Perhaps he was trying to forget something?

He read my mind, and he began to explain. "I had a soft job in a garage—money, the lot. Seven hours

a day, and no overtime. Well, I just got fed up, so I asked them to give me an old rattletrap of a lorry to work with. I spent hours every day taking her to pieces and putting the parts together again.

#### "Why I went to sea"

"Money's not the main thing as far as I'm concerned. I try to get the long runs through rough country, just for the kick it gives me. People wonder about this, but the fact is I just like travelling—that was why I went to sea in the first place. I wanted to see other countries, so I went into the Merchant Marine.

"At first they said there was nothing doing, and I should go to a special school to qualify. The trouble was, I couldn't afford to stop working to study, as I had to support my mother, so I applied again for a job on a ship and they gave me one as a stoker. But later I did a course as a diesel operator and got a berth as engineer in a big ship on the run between the Soviet Union and Italy, Poland, the German Democratic Republic and France.

"I remember how some of my friends used to ask me to bring some little thing home for them. One girl in particular liked these trinkets and so on, and it was a pleasure to see how they made her eyes shine.

"We went steady for three years all the time I was at sea, with occasional visits back home—it wasn't easy. But she waited, and every time we met she put it up to me to settle down ashore, and at last I agreed.

"I gave up the sea and we moved to Bratsk. But it didn't last. At first everything was all right. I got her a job with a team of builders, and I began to take driving lessons.

"We were still very much in love and everything seemed to be going well, but suddenly it all went to pieces when I started evening classes. She didn't like it, and when I began going out to P.T. classes, too, she complained that she never saw me anyway and we might as well part.

"That was a couple of years ago. I met her again recently—she's got a softer job than at the construction site, and she likes it. She wanted me to go and see her at her place, but that's not for me."

He was obviously upset, so we stopped and admired the sunset. But she was still on his mind as he said, "I like beauty, and I loved her for her beauty, but I suppose I didn't look any further than that."

I asked, "Are you still trying to find your ideal?"

"What do you mean by ideal? I see all kinds, but I like people to be strong and unselfish, something like Jack London's characters. And especially those who keep their word. I hate prattlers."

#### A new leaf

Bratsk is very much in the news, and that's probably why so many applications for jobs at the building site are pouring in. All kinds of people want to go there: youngsters, demobbed soldiers, workers, farmers, students, teachers, doctors.

One man wrote, "I am writing this from prison. My term is nearly up, and I'll be out in a couple of months. Altogether I've served five years. I could cover this up, but I can't lie to Bratsk."

"I got drunk and was in a fight, and somebody was taken to hospital. It was my fault. Now I want to work with you—I'll stick to you, whatever happens. I'm an assembler by trade, but I'll do anything. A man can't write off the past, but I want to try and turn over a new leaf in Bratsk."

This man is now in Bratsk and, according to his friends, "works like a beaver". And he is happy.

#### The future

Everyone coming here tries to picture the place five, ten or 20 years from now. Anatoli Legkodymov sees it as a city of wide concrete roads, modern buildings, parks, theatres, swimming pools and cafés. It will be a wonder town, he believes.

Today, Bratsk is mainly a town of builders and the like, but in ten years it will be full of students and it will be sending its artists to other places.

By 1972 Bratsk will have a ten-storey building housing the various public organisations, an 11-storey hotel, a cinema seating 1,600, a theatre for 2,000 and a modern shopping centre.

By 1980 the population should be 300,000—yet there were only a few thousands here before 1955.

"We'll build a big city here," says Anatoli.



## ILYA REPIN, *painter*

In nineteenth-century Russia there arose a splendid constellation of painters whose importance extended far outside the country. Foremost among these was Ilya Repin (1844-1930).

Repin's long life was not full of sensational events. Born of poor parents in a Ukrainian village near Kharkov, he displayed an early talent for drawing, but there could be little thought of special training until the boy was commissioned to paint the murals in the local church.

With the money he was paid for this work Ilya went to St. Petersburg, where he entered a school of drawing, and a year later went on to the Academy of Arts. The youngster's talent was recognised by all his teachers, and on graduation he received a gold medal and a scholarship for study in Italy in addition to his diploma.

Strangely enough, the glories of Italy left him cold—or, rather, he was not impressed with the landscape and architecture; the people, especially those accustomed to hard physical labour, held a tremendous appeal for him. These were the folk he noticed and sketched, both abroad and later at home. His "Barge Haulers" (1871), the first of his canvases to become famous, is typical.

Social conscience, ever present in Russian art, was something Repin had in the highest degree. Though not a deep political thinker, he was sensitive to the pulse of the times and used his brush boldly to express advanced ideas. His sympathies were with the humble and the oppressed, and he was perhaps the first of the Russian painters to depict the revolutionary as a hero, which, for obvious reasons, did not endear him to official circles.

By temperament Repin was impetuous. Usually modest, even shy, he was ready to rush at anyone who in his opinion had perpetrated an injustice. This had its effect on his art, for here, too, he was hot-headed and partisan.

Looking at a picture by Repin it is easy to tell where his sympathies lay: even in his strictly realistic paintings he could, and sometimes did, border on the grotesque. The gendarme in "Arrest of a Propagandist" looks almost like a caricature. And when Repin, a painter of great renown by that time, was commissioned to do a portrait of the Russian Empress, the Court were horrified upon its completion to see a vain and bilious-looking woman staring back at them from the easel. Repin never compromised!

What attracted Repin most of all—in life as in art—was the strength in people. Just look at his barge haulers. This is not merely a grim picture of life in old Russia. In the line of slowly moving men, bowed down by inhuman toil, one can sense immense might, but might under restraint. One feels that once freed of their yoke (which contemporaries saw as a symbol of czarist oppression), and given the chance, they would yet show the world.



"The Ploughman"



Portrait  
of V. V. Stasov





"Zaporozhye Cossacks" depicts an event that actually took place in 1675—the writing of a mock-serious letter to the Cossacks' old enemy, the Turkish Sultan. It is being jointly composed with a great deal of relish by the leaders of the Cossack freemen. These are, in one way, brothers to the barge haulers, but they are at the same time their opposite. Here is the same might, but it is might unchained. Painted with a lushness reminiscent of Rubens, this is a highly picturesque group of men, powerfully built and proudly conscious of their invincibility.

"Ivan the Terrible and His Son Ivan on the 16th of November 1581": This painting, completed in 1885, seemed to many a violation of aesthetic principles both as to the subject itself and because

*continued on Page 112*

*"Religious  
Procession  
in the  
Kursk Gubernia"*



*Detail from  
"Religious  
Procession"*

*"Refusing Confession"**Left: "Berge Haulers"**Below left: "Arrest of a Propagandist"**"Unexpected Return"*



of its grisly realism. In 1913 one visitor to the gallery even slashed the picture with a knife. But it is not the shockingly accurate description of the crime that is the strongest point of the painting. Repin here is not a medical expert testifying in court; he is more like a public prosecutor with a sense of psychological effect. Every detail in the picture is subordinate to one idea: "Never let a tyrant shed the blood of the innocent!"

With executions for revolutionary activities on the increase, a picture like this was bound to have wide repercussions. Politically significant, it was also a dramatic *tour de force*—the horror and despair of the Czar who has just murdered his own son is put across with an immediacy never seen before.

In the picture "Unexpected Return" (1884),

*"Ivan  
the Terrible  
and His Son  
Ivan on the  
16th November  
1581"*

*Detail  
from  
"Ivan  
the Terrible"*

Repin shows the family of a political exile at the moment that he enters his home after a long absence. It is apparently the moment of shocked silence preceding the outburst of emotion. The pictorial qualities of this painting, an intoxicating sense of light and air, are such that the viewer experiences the illusion of his own physical presence in the scene. A particularly effective piece of painting is the old woman's back, which expresses far more than many a carefully painted full-face view.

In "Arrest of a Propagandist" (1880-92), Repin has shown a man who, though in a critical situation, preserves his inner sense of freedom. He sees very clearly his aim in life, and fears nothing. This is the same unbained force we saw in "Zaporozhye Cossacks", but now it is inspired by an important idea. The figure of the main character and those of his persecutors are shown in significant contrast.

Repin left behind him a whole gallery of portraits of his contemporaries. These paintings are extraordinarily vital and psychologically true. The flat canvas comes to life, the paints transformed into living flesh. His portraits include the famous patron of the arts, the collector Pavel Tretyakov, the composer Modest Mussorgsky (four days before his death), the surgeon Pirogov, and Leo Tolstoy, who was a friend of Repin's.

Repin's later work was lit with flickering sunlight; the brush strokes became broader and freer, the careful delineation of details gave way to a livelier play of colour. Examples of these tendencies are to be seen in the picture, "Leo Tolstoy in Front of a Tree", and portraits of Repin's daughters.

From the year 1900 Repin lived at his country home in Kuokkala, a Finnish village near St. Petersburg. In December 1917, Kuokkala was ceded to Finland. But to the end of his days Repin felt his close ties with Russia and was always interested in all the changes that took place there, and hoped to return home one day.

Today his home is a museum.

*Portrait of  
Mme. Monterre  
the pianist*



*Top right:  
Portrait  
of Mussorgsky,  
the composer*



*Right: Portrait  
of Glazunov  
the composer*



*Far right:  
Portrait  
of Borodin  
the composer*





## THE LETTERS WE GET

by Dr. Boris SHUBIN

*from the weekly NEDEL'YA*

I don't know any type more unpredictable than newly-fledged doctors, in whom periods of buoyant enthusiasm and self-confidence alternate with bouts of despair and disappointment.

How many of us in the profession have not experienced moments of intense depression as we have watched a patient die; we become so dispirited as to feel we have chosen the wrong profession.

This was the mood of a colleague and friend, Victor, when he told me he had finished with medicine for good.

I tried to talk him out of it, but got nowhere.

"You should see the way my patients look at me when I enter the ward," he said. "I can just imagine what they say when I'm not there. I feel like . . ." He waved his hand despondently, and walked off.

I know from my own experience that the best medicine for a doctor in a case like this is a word of gratitude from a patient.

I tried to think who I could get to say it to Victor that day, and I decided to be crafty. In my patients' letter-file I found one I had received a couple of years earlier, when I had

been feeling as low as Victor did then.

It read, "Dear Doctor, I have been home for quite a while now, but I still wake up in the morning feeling that you will soon be here to make your rounds. And it is difficult for me to accustom myself to the fact that you won't be coming, and I shall not be seeing you. I am quite well again, and am back at work. But no matter where I am or what I do I always think of you. I often look at my watch and wonder what you are doing now. I wish you every success in your noble work! Sincerely, N.P."

The letter bore no date, the doctor's name was not mentioned, and the sender's name was not given in full. All I had to do was to put the letter in another envelope and send it to Victor at the hospital.

To tell the truth, I was sorry to part with this letter from the mysterious N.P. I call it "mysterious" as there had been no return address, and there were so many names with the same initials in the patients' register that I could not imagine which of them had written the letter.

On Monday I found Victor completely changed, as if he had just passed through the critical stage of a grave illness. He laughed and joked, and his high-spirited voice could be heard everywhere.

I politely inquired what had caused the change. He grinned and thrust a letter at me—one I knew well.

"Here, old man," he said. "Keep it as a souvenir. I wrote it to cheer you up two years ago."



## FOLK CRAFT MIRACLE:

*Silver  
turned  
to Gold*

by Galina BALUYEVA

*from the magazine  
KHIMIYA I ZHIZN*





*Anglers use these  
for the fish soup  
they brew up  
over the camp fire*



# ME

echanisation of auxiliary processes has boosted the output of the world-famous Khokhloma hand-painted wooden ware without detracting from its artistic quality.

Today, most of the glass-holders, spoons, plates and other utensils are machined on a lathe from birch or lime. The painting, the real creative work, is still done by hand.

The turned shapes are dried out for about a fortnight and then prepared for painting. The first step is to surface the articles with a watery clay mixture containing powdered aluminium. Then they are given several coats of linseed oil and oven-dried at 140°-155° Fahrenheit. This process gives the wood a silvery colour, the background on which the designs are painted.

Red and black oil paints are used. More coats of varnish are then applied and this is followed by further oven-drying, at a higher temperature than before. It is during this heat treatment that a chemical "miracle" occurs—the silver is turned into gold.

Apparently at high temperatures linseed oil "tempers" and acquires an attractive golden hue, and this, combined with the metallic shine of the powdered aluminium, produces an excellent imitation gilt. The treated varnish also renders the wood impermeable to hot liquids, and Khokhloma ware can safely be used for hot tea or soup.

The traditional black-and-red decoration has a practical basis as well as an aesthetic one. Only a few natural dyes will stand up to the oven-drying process: Khokhloma ware-makers use vermilion and ordinary soot.

The process has been modified since Khokhloma ware first appeared. An important innovation in the

*Continued on Page 126*



*Above and right, two fine examples of the famous Khokhloma hand-painted wooden ware.*







*Flower vase  
and powder box*



*Polished brass*



*On shelf,  
soup tureen (front)  
biscuit barrel (behind)  
and sugar bowl  
Below, sweet dishes*

late nineteenth century was the use of powdered aluminium instead of the tin or even silver used previously.

The name Khokhloma was taken from the large trading village where the woodenware was first sold. Originally it appeared in the province of Kostroma, on the Volga, and later the centre moved farther south to the neighbourhood of the old Russian towns of Semyonov and Gorodets, which lay tucked away in the forests near the market town of Nizhny Novgorod (the old name for the city of Gorky).

Early in this century the Khokhloma industry, like many other Russian handicrafts, began to wane. One reason for this was the influx of cheap factory-made crockery and other utensils. Another damaging influence was an attempt to "ennoble" folk crafts by foisting alien designs and techniques on to the traditional ways.

It was only after the October Revolution in 1917 that Khokhloma ware was revived. In 1918 a co-operative was set up in Semyonov which drew together the hitherto isolated craftsmen.

Later, the Arts and Handicrafts Research Institute, established in 1932, gave great assistance and worked out improvements in techniques.

Today, the hand-painted Khokhloma ware is in great demand, both at home and abroad.

Set of dippers



## The poetry of motherhood

*Drawings of Lydia Ilyina*

*Happiness*

by **Sophia YERLASHOVA**

*from the magazine ISKUSTVO (Art)*

When she left the Art Institute in Moscow in 1938, Lydia Ilyina travelled to Kirghizia, a mountain land high in the Tien Shan range (most of it more than 5,000 feet above sea level) on the Soviet-Chinese border.

She had studied under the distinguished graphic artist Vladimir Favorsky\*, and was ripe for the many impressions that crowded in upon her in this new and unspoiled country. Here was fascinating mountain scenery full of vivid contrasts, and a rich tradition of folk art. She decided to stay.

From the start, Kirghizia has provided all the themes for her work, including illustrations for the Kirghizian classical writers and a folk epic, the *Manas*.

\*See "Favorsky" in SPUTNIK, April 1968.





Among the best of her works is a series of black-and-white linocuts, *Motherhood*, completed in 1967. Although the artist uses Kirghiz material exclusively, the basic idea, the concept of motherhood, is given a generalised treatment, with no

details to distract from the main masses.

The portrayal of the national type is very vivid and expressive, but is not an end in itself. The specifically national becomes the generalised human.



Sleep



Newton



## EXPERIMENTS IN TEACHING

*Condensed from articles  
in the Soviet Press*



*Alexander Sedov's friends and teachers are sure he'll make a name for himself in the scientific world, in the days to come.*

From time immemorial, the accumulated knowledge and skills of the older generation have been passed on to the younger. In this way, mankind has progressed. How best to train, educate and develop young minds is one of the major problems preoccupying educators and scientists in this country.

It is possible for a man to learn 20 languages, graduate from a dozen faculties and learn the encyclopedia by heart. But he does not know how to become a genius.

Soviet Professor Platonov says, "Theoretically, any schoolboy can

become an academician. Only one will need 30 years to do it, and another, 300."

A child's possibilities are unlimited, but they must be developed by those around him and by himself during the course of his entire life.

The children who are now in their early years at school will be living a good part of their lives in the 21st. century. They will come face to face with new scientific discoveries, yet unknown formulas, revolutions in technology. They must be groomed—physically, morally, and intellectually—for that complex world.

Traditional methods of teaching have been examined and found wanting. How should the schools of today cope with the task of educating the generation of tomorrow?

Professor Leonid Zankov has his own ideas.

#### Back to school

The professor began attending the first form\* in an ordinary primary school. Every morning, satchel in hand, the professor set out for school like any other first-former, took his place at his desk and pulled out his text-books, exercise-books and pencils.

In time, the children became accustomed to his presence and considered him one of their own. The children grew older and taller and accumulated knowledge, and along with them the professor also made progress and accumulated knowledge.

After lessons were over the children ran off home or out to play. But

the professor stayed behind to discuss matters with the teacher. Both the teacher and her class worked under the guidance of the professor. In three years the professor and his fellow pupils completed the four-year school programme.

That red-letter day was a significant occasion in the life of a distinguished educator.

While still a student, Zankov had carried out experiments at the Institute of Psychology. His professor was Lev Vigotsky, who died of tuberculosis in the 1930s. Vigotsky left behind a number of bold and original theoretical works in the field of education. Unfortunately, none of his ideas had been put to the test of life.

Zankov not only shared his professor's theories; he was determined to try them out.

After graduation, Zankov worked as a village schoolteacher and later was put in charge of a colony for delinquent children. By the time he decided to devote his full energies to research in methods of education, he was an experienced psychologist, a specialist in the field of memory and an outstanding pedagogue.

The day his three-year stint with the class was over marked only one phase in Zankov's long search for the correct key to open young minds.

Ten years ago, a unique "laboratory" under Zankov's guidance was created. Its aim was to observe children and study their reactions to the learning process. Zankov's handful of assistants took on a Herculean task. Thousands of cards were filled in with the most detailed information



*Ptolemy (right), celebrated second-century astronomer, geographer and mathematician, a man who cleverly made the most of his educable potential*

on children. Answers to thousands of "why's" were obtained.

Apart from that, an experimental class in a Moscow school was established for close observation. A year later the researchers could see that a great potential was being released in



*Someone obviously knows the answer—and he's quite confident that he knows*

the pupils of the experimental class.

Then Zankov took his place at the primary school desk while one of his students and colleagues taught the class on the basis of the professor's experimental techniques.

At the end of three years Zankov was vindicated. Not only had the children easily mastered the four-year course in three; their teachers in the fifth form found them demanding. Their level of knowledge was higher, and the type of questions they posed was more complex than those asked by ordinary fifth-formers.

Zankov and his colleagues decided to transfer their research to smaller towns in Russia for purposes of comparison. This marked the second

stage. In Kalinin, 10 teachers volunteered to work under his direction, and in Tula another 10.

The problems were enormous: they had started from scratch, and textbooks and curricula were a pressing necessity. Nevertheless, in two years it was possible to say that the children in the experimental classes covered their work much faster, and grasped it more fully, than those following the regular programme.

The third stage is still in progress. At the present moment, there are 1,124 experimental classes in 11 districts of the country.

Zankov reasons that when a child starts school, the main problem is not to teach him to read, write and count, but to teach him to see, observe, think and draw conclusions. The problem is how to develop that boy or girl into a sensitive, cultured, intellectual being who will make his contribution in life whether he is a worker, farmer or scientist.

It goes without saying that the necessary knowledge of mathematics, geography, history, the sciences, must be imparted; but it must be done in such a way that learning becomes a pleasure.

In Zankov-style classes, the teaching is conducted on the highest level comprehensible to the age group. The pace of lessons is fast. Considerably more theoretical knowledge is presented than is usual in primary schools.

All work done by the pupil is done consciously: that is, he tries to understand how he is learning and the reasons for his mistakes.

But this is only one side of the picture. The other is the formation of personality.

In these experimental classes, new relations between teacher and class, between the children themselves, are forged. The byword is kindness and friendship; the atmosphere, relaxed.

The teacher does not give orders; he explains and knows how to listen, and encourages the class to discuss and argue. He makes sure that everyone participates. In ordinary classes, weak students often retrogress because they are unable to enter easily into class discussions. Here, everyone learns to express an opinion.

Marks are usually given only for the quarter. (A wise teacher does not need marks to determine a pupil's level.) The main incentive to study is love of knowledge, the desire to learn something new, curiosity.

"Isn't general development of the children achieved at the cost of concrete knowledge?" is a question frequently posed by opponents of the experiment. Thorough checking has demonstrated that concrete knowledge is being satisfactorily absorbed. But it is absorbed not as a set of facts duly memorised but acquired through development. It is not the number of the paragraph that is important, but the content.

When Ministries of Education in various republics request Zankov's aid in starting new experimental classes, he refuses. "It's too soon," he replies firmly.

At least another three years are needed before the system can be introduced widely. In the meantime,



*Medieval teacher with the birch, an important tool of the trade in other days*

teachers must be trained in the new method and suitable textbooks produced on a mass scale.

#### Uncovering hidden talent

Experimental classes of a different type are being conducted in other schools.

Alexander Kronrod, head of a laboratory at the Academy of Sciences Institute of Theoretical and Experimental Physics, needed programmers—people capable of translating problems from human speech into the language of electronic computers. He was advised to try the schools.

Among the many professions taught at vocational training schools is that of programmers. After a three



Mathematics can be fun

year course they finish as laboratory assistants. Kronrod was confident that he and his colleagues could turn such pupils into programmers of that level within two weeks. It seemed like a waste of training. Perhaps there was another way?

And so an experiment was born.

School No. 7 in Moscow is an ordinary one. It is not even a special mathematics school. And yet one year the school took 60 per cent of the prizes at a city mathematical competition. The remaining 40 per cent were divided among 900 Moscow schools.

One pupil of the school in his final

year had a mathematics paper published in a journal of the Academy of Sciences. Two other pupils have worked out a standard programme for electronic computers which is used in scientific research institutes. (Pierre Laplace, the astronomer, once said that the table of logarithms doubled the lives of mathematicians. In the same way, once standard programmes are compiled, whole series of problems can be swiftly solved.)

Youngsters who have been through School No. 7 are allowed to proceed straight to second-year university courses, and some are even placed in third-year courses in the mechanics-mathematics faculty.

But what is truly remarkable is that the 80-year-old teacher of geometry in the school, Vassili Yefremov, can say of one of his pupils, "He is a genius". The same boy, two years previously, was refused admission to a special mathematics school on the grounds that he had no aptitude for the subject. And he is not the only "genius" in the programmer classes. They are all products of unusual teaching methods.

Instructors often sit at the same desk with the pupil. A low hum of conversation fills the room (talking in class is allowed!). A series of problems has to be solved. Now it is up to the pupil to draw his conclusions. In this way, Pythagoras' theorem and Newton's binomial are worked out by the adolescents themselves.

On one occasion, a theme which is covered in two lessons in ordinary schools took the class three months.

(Problems of the same type were given to mathematics students of Moscow University, who were unable to cope. It was realised that the underlying principle had never been understood in school.) On the other hand, whole sections of maths text books were absorbed effortlessly, within hours.

Naturally, there are good and poor students in the class. The more advanced are given more complex work, and each can advance at his own pace. Test work is assigned for home solving. If a pupil fails to come to grips with the problem he can try again. And again. Until such time as the solution is reached.

Marks are given for the best effort turned in, and only then for purposes of arriving at a quarter mark. The true "mark" in this experimental school is given for the ability to work, think, struggle for achievement.

#### "You think—you're in"

In the life of every true scientist there comes a time when he begins to wonder: who will carry on his work? Who will develop his theories, or perhaps prove them false and start afresh?

In short, the scientist is concerned for the future.

At Akademgorodok (Science Town) near Novosibirsk, in Siberia, it was decided to create a school specialising in physics, mathematics and chemistry. The aim was to provide highly-talented youngsters with a scientific centre for work, and at the same time create a pool for the



research institutes to draw from. Today the 20 institutes located in the Science Town are headed by world-famed scientists. Many problems are worked on simultaneously by several institutes. The graduates of "Phymachem" are in great demand.

There is only one road to "Phymachem". The children of Siberia, the Far East, Kazakhstan and Central Asia who have a scientific bent and wish to try for admission must pass from round to round of competitions. The successful candidate need not have solved all the problems set him. It is sometimes enough if he solves one in an original manner. Someone once said, "You think, therefore you're in."

In this secondary school the course lasts three years instead of



English boys with their diplomas after the Tenth International Mathematical Olympiad in Moscow

"Off to bed without any supper!"  
Advanced educational methods of the fifteenth century



four. It is intended to shorten the length of schooling to two years. The school is organised on a university basis: two semesters with exams at each conclusion, instead of the usual quarterly terms. There are two hours of lectures daily.

The most talented children are tutored individually by scientists.

Perhaps the most treasured members of the school are the "fantasts". They are a special caste. To gain admission to this exclusive circle it is necessary to propose a bold idea and then successfully defend it at an "evening of fantastic projects". It is not easy to rebut the arguments of some of the country's top scientists. A poorly constructed theory is torn to shreds. But now and then...

The theory of relativity guarantees that the time inside a rocket travelling at sub-light speed to other worlds will be less than on earth. It would take 28 years to travel from earth to nebula M31 but on earth one-and-a-half million years would have elapsed. Is it necessary to add that travel at the speed of light has so far been achieved only on paper?

All these facts were well known to those who had gathered one evening to listen to another fantastic project.

A freckle-faced lad of 14 took the platform and announced, "All these ideas about taking decades for interplanetary flights are incorrect. They are incorrect if one assumption is made."

The boy took a piece of chalk and drew several curves on the blackboard. His explanation followed: let us assume the universe is shaped

in accordance with Moebius. This means that the surface is something like a twisted hoop. In this case the space ship will not travel along a straight plane lengthwise, as is usually thought, but will pierce the universe straight across. The flight period would decrease from decades to a matter of days.

The boy put down his chalk. The audience was silent, sunk in thought. A grey-haired academician scratched his chin. Whispers among researchers grew. The weakness of the hypothesis was in the fact that there was no existing evidence that the universe was curved like the Moebius

ribbon. On the other hand nor was there any evidence to the contrary.

More than 150 years ago the Utopian Saint-Simon wrote:—

"That epoch will be a happy one in which ambition will see greatness and glory in the achievement of knowledge alone and will abandon those unclear sources at which it strove to slake its thirst. These were sources of calamity and vain-glory, which appeased the thirst of only ignoramuses, heroes, conquerors, and exterminators of mankind. Let them dry up, forsaken by all, and let them stupefy no more those supercilious mortals."

## FOOLING THE INSECTS

from the newspaper  
**LESNAYA PROMYSHLENNOST**  
(Timber Industry)

Smells are very important for insects. The male bark-beetle, for instance, always knows when there is a lady around, and the female of the species secretes and exudes a substance (terpene alcohol) which can be smelt and identified by other beetles up to half a mile away.

A diseased and dying tree secretes substances whose odour attracts bark-beetles, and they come scurrying from all sides. Curiously, each insect gets a strictly defined area of the bark.

Several types of substances attract insects by their smell. Those exuded by the insects themselves (called "pheromons") can cause specific reactions such as urging the insect towards the source of the smell; or they can affect the entire organism, sometimes causing complete "re-tuning".

Bark-beetles' pheromons have the job of attracting masses of insects to the "pie", and regulating the population density on a given tree.

The secretion begins only during mating periods, when they eat most of all. The larva variety exudes peak amounts while building its nuptial chamber.

The substances are active for a short time, being particularly detectable in the first three days.

Soviet and U.S. researchers have managed to isolate and synthesise some of the substances which attract, giving foresters a weapon to combat pests by luring them into "traps" by means of an artificial smell bait. The insects become completely disorientated in consequence, rushing from trap to trap and finally dying without breeding.



# OF HORSES AND MEN

by Yulian SEMYONOV

from the magazine ZNAMYA

**C**OPPICES of young oaks and silver birch groves are scattered over the hillsides. The air, heated to incandescence by the sun, lies motionless over the fields. All is still. Only a few swallows call cheerfully to one another in the yellow sky, and from somewhere far away comes the ring of children's voices.

I am sitting with Lyonka Krutikov in a small field surrounded by a neat hedge, where trainers exercise their horses twice a day. Lyonka loves horses and dreams of becoming a trainer himself. He is very particular about using the right terms of his future profession and corrects me with shy embarrassment when I get them wrong.

He is 17 and has one more year to go at school. He is fond of philosophizing, although his excursions in this field are of a somewhat practical nature. He says to me:—

"Man understands horses. And horses understand us, too. You can talk to a horse, you know. I wouldn't tell that to our biology teacher, though. She'd give me bottom marks right away. It's a pity, that.

"Horses seem to understand everything you say. All animals do but you've got to have the right approach.

"Take a cat—it's like a little child

---

Born in 1932, Yulian Semyonov followed in his journalist father's footsteps after graduating from the Moscow Institute of Oriental Studies, and became a correspondent for the popular weeklies *Ogonyok* and *Smena*. He has written stories, film-scripts and plays, the best known of which is *Petrovka-38*, about the work of the Moscow C.I.D.

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All you've got to do is make a paper ball on a bit of string and she's your friend for life. Dogs are a bit more of a problem. They're kids, too, but they've been to school. You've got to treat them kindly and be strict as well."

Lyonka smiled. "I know that from my own experience. And a horse is like a grown man. You don't need any tricks or educational work with him; he knows it all already. If you talk to him the right way you can't go wrong.

"When I finish school next year I'm going to be a groom. Then I'll take a course and become a trainer."

A mare called Extra is walking in the paddock with her foal. The foal's name is Erson. It doesn't mean anything, but it sounds good.

Extra pulls the grass with her soft lips, chews it without haste, then tosses her beautiful head with her long huge mane hanging almost to the ground, and pauses to listen. She stands like this for a long time, twitching her ears, and then, having reassured herself, bows her head again and once again pulls at the succulent grass.

A little farther away a herd is grazing. The colts are playing with each other, running races, sparring and nuzzling up to each other just like children after their games.

But little Erson stays with his mother all the time. He does not leave her side for a second. Is it cowardice or pride? He is very beautiful, much more beautiful than any of the others grazing with the herd.

But even as I watch, Erson, with a

few cautious glances at his mother, starts moving away towards the others. For the first 20 yards he scarcely seems to move his legs; then he goes on a little faster and soon breaks into a gallop, kicking his hind legs gaily.

Extra hears his gallop. She lifts her head warily and stands motionless, listening to the retreating rumble of hoofs. She sighs. Yes, she actually sighs with disappointment, just like a human being, and remains standing with her head in the air. A light breeze plays with the grass, with the white leaves of the birches, with her mane. It is a gay, carefree little breeze. But Extra is as sad as can be, almost hurt.

"Is she angry?" I ask Lyonka.

"No."

"What is it, then?"

"She's blind," Lyonka says with a sigh. "She went blind with pain when she was foaling. He's her guide. And now he's run away and she can't go a step without him. But she doesn't call him, does she? She knows he's only little and wants to play. She'll just stand like that till he comes back."

And Extra stands for half an hour, an hour, her beautiful head held high, staring up at the yellow sky with her huge deep-blue eyes.

Erson returns. He comes back at a gallop, but as he approaches his mother he breaks into a walk, and by the time he reaches her his legs are scarcely moving.

Extra feels his presence. She lifts her head even higher and lets out such a neigh of joy and triumph that

it makes your heart ache. The foal comes up close to her and pushes his muzzle into her groin; then he walks round his mother, nuzzles her chest as though kissing her, and turns away to the stream.

Extra follows him with her head high. She crosses the grass calmly and proudly, just as though she can see.

"That's a real horse," Lyonka says thoughtfully, watching the mare.

\* \* \*

Gravedor, an Akhal-Teke stallion, is trained by a stocky little man with blue eyes, a square red face and a moustache like a little brush of wheat-ears.

Gravedor squints savagely and bucks with all his might to throw his trainer. He is flecked with lather and gnashing his teeth, and his eyes grow more and more bloodshot every minute.

"Now then!" shouts the trainer. "Go! Go properly! Yes, that's it." He is teaching Gravedor the Snake, a tricky dance step, and Gravedor has to move rather like a ballet dancer, putting one foot after the other right across the stage.

Gravedor is furious. He doesn't want to be a ballet dancer. He wants to gallop across the green meadow, then plunge into the river and swim, then climb out and stand on the warm sand and think of nothing.

"Go! Go on, old chap! Step even!" the trainer coaxes, holding the reins so tight that the stallion's head is forced back unnaturally.

Gravedor has a temper, but his

trainer is no weakling either. The duel between horse and rider goes on for half an hour.

I am so fascinated at the way the trainer calmly persists with his horse's dancing lesson that I forget all about Lyonka. But then I hear a sob behind me. I turn round. Lyonka is white in the face and has bitten his lips till they are bleeding; his fists are clenching and unclenching on his bony, boyish knees.

"Uncle Vitya!" the lad shouts. "Uncle Vitya!"

The trainer drops the reins and looks questioningly at Lyonka. The lad jumps off the log we have been sitting on and rushes over to him.

"Uncle Vitya," he pleads. "You promised me you'd let me have a go today."

The trainer mops his brow, takes off his velvet jockey cap and turns away. For a long time he stares across the field at the hillsides where the stumpy oaks and white birch groves are scattered.

"You think it's a shame, do you, that I'm making him so angry?" he says at last.

Lyonka hangs his head in silence. "You think I'm torturing him, do you?"

The trainer swings round abruptly, gives the lad a long look, then suddenly dismounts and hands him the reins.

"Get into that saddle," he says, "and train him as you think fit."

Lyonka's face brightens. He grabs the reins and with a quick leap throws his agile body into the saddle. The next moment he is lying on the



ground. The trainer hears Gravedor throw Lyonka, but he walks on calmly across the field as though nothing has happened.

Lyonka springs into the saddle again and Gravedor again tips him off to the ground. Lyonka tries yet again, with the same result.

The trainer stops for a second, apparently considering what he should do, and after fingering the little fair brush of his moustache for a moment, turns and strolls back. He comes up to Lyonka, who by this time is red with annoyance, takes the reins from him, yanks the stallion's head round and looks into its eyes.

"Aren't you ashamed of yourself, Gravedor? Why do you behave like this? Aren't you feeling well, old chap? Is that it?"

The horse turns away and sighs loudly.

"Shall I call the vet?" the trainer persists. "Now then, show me your teeth!"

He examines the horse's teeth, examines each hoof, tests the saddle girths, then hands the reins back to Lyonka and walks away to the log.

And again Lyonka has three falls in succession. Then the trainer runs over to Gravedor, loosens the saddle girths, takes the reins and leads him away. He does all this in silence and as though he is angry. He leads the horse away across the field, walks him to and fro and talks to him all the time, looking into his eyes.

Lyonka sits with me, brushing the yellow dirt off his trousers, and explains.

"See the way he breaks them in?

He lams into them and does anything he likes, but they're nice as pie to him. I fondle them and treat them to sugar, but they still prefer him."

Half an hour later the trainer leads Gravedor over to us and says to Lyonka, "Now see what you can do!"

Lyonka approaches the stallion rather timidly, hesitates for a moment with one foot in the stirrup, then throws himself into the saddle and laughs happily. Gravedor glances at the trainer with his clever eyes, and twitches his ears ever so slightly.

The trainer sits down beside me.

"That lad will make good. He's got a kind heart."

"Are you sure he will?"

"Yes, of course. He's not afraid of falling, either. And what's more, he doesn't bear the horse a grudge. But he's a bit too gentle. Still, never mind. He'll catch on. At the moment he thinks being kind is just a matter of being gentle."

The trainer smiles and chuckles into his moustache. "A very common mistake, that. Cruel people are much more gentle than kind ones, as a matter of fact. Kindness demands more strictness. It's hard to be kind, eh?"

"Yes, it is," I agree. "Very hard indeed."

In the middle of the field Lyonka is carefully training Gravedor, and my neighbour with his wheat-ear moustache and square red face watches them and smiles affectionately, and screws up his eyes in the bright, gay sunshine.

## Fish to the rescue!

*from the newspaper LENINSKAYA SMENA, Kazakhstan*

Fish from the River Amur, in the Far East of the Soviet Union, are helping to irrigate arid steppe-land thousands of miles away, in the Karakum Desert in Soviet Central Asia.

When a great canal was cut through the Karakum Desert some years ago, it looked as though the long-cherished dream of the Turkmen people had materialised. They would now be able to cultivate vast areas hitherto useless for lack of water.

But before long the dream began to fade, for only about one-third of the water that started flowing through the canal got through to its destination. Evaporation took its toll, but the main enemy was waterweeds that grew at a disastrous rate and choked the channel.

Floating mowers were devised and tried, attempts were made to uproot the weeds with tractors, but there was no effective improvement. Then Turkmenian scientists had a brain-wave.

The result was the transfer of 400 Amur carp half-way across the Soviet Union. These carp are voracious vegetarians, one fish devouring as much as 35 lbs. of reeds, grasses and other waterweeds, its own weight, per day.

At first it was feared that the carp would not become acclimatised, as

they are used to the rivers of the East Asian plains, monsoon country, whereas the Karakum Canal crosses an extreme continental zone with no summer rains.

This first batch of carp were released in a five-acre reservoir on the canal and soon made themselves at home, however. Although their combined weight was only about 120 lbs., they cleaned up the reservoir's dense vegetation in less than four months. If their sharp teeth found the reed too hard, they would sometimes jump out of the water to get at a softer part.

Naturally, they gained weight. The only trouble was that they refused to breed in still water, so the females were given injections of hormone stimulants, and in 12 hours or so began to spawn.

The next thing was to free 400,000 fry to follow the 400 pioneers, and they cleared the channel in five years. The fish gained up to 45 lbs. each in weight.

Once adapted to the new conditions, the Amur carp made their way along the canal to the Amu-Darya River and began to breed there. No one has discovered the spawning places, but in any case this nutritious, highly palatable fish is now becoming commercially important.

by Dmitri PAVLOV, Minister of Trade of the Russian Federation

During the siege of Leningrad 632,000 people died of hunger, 17,000 Leningraders were killed by bombs and shells, 840 factories and 53.5 million square feet of housing were destroyed.

In last month's SPUTNIK, D. V. PAVLOV, who was in charge of food provisions for the beleaguered city, told of the early stages of the blockade.

The Soviet Union was attacked on the morning of June 22, 1941.

## THE SIEGE OF LENINGRAD

Hitler had counted on Leningrad being taken one month later—by July 21. Field-Marshal von Leeb was in charge of the Group North Army which was entrusted with the task. By July 10 Nazi troops had advanced to within 124 miles of Leningrad. By September 8 the Nazi ring around Leningrad was complete. The only way supplies could come into the beleaguered city was across Lake Ladoga, where Soviet troops held a 40-mile

strip on the south-western shore.

The Nazis made an attempt to close this small gap, but failed. However, the scanty provisions which came through were completely inadequate to feed the population of 2½ million, and hunger settled over the city.

This second and concluding instalment from Pavlov's book, *The Siege of Leningrad*, takes up the story of those grim days from the beginning of November, 1941.

## NOVEMBER

The dry, clear days of October were replaced by lowering weather and heavy snowfalls. The earth was covered by a thick blanket of snow; drifts formed in the streets and avenues. A freezing wind drove the snow between the cracks in the temporary wooden shelters, through the smashed window-panes of flats, hospitals, stores. It was an early winter, snowy and cold.

The city transportation system gradually deteriorated. Fuel was running out. Factories closed down. Workers who lived far from their jobs had to plod several miles through deep snow, sometimes from one end of the city to the other. In the evening, weary to the bone, they barely made it home again. Then for a short time they could throw off their clothes and stretch out their tired, heavy legs.

In spite of the cold, sleep came swiftly, but a sleep broken by shooting pains in legs or arms. In the mornings people struggled awake: the night's sleep did not refresh, did not bring new strength.

When a person is exhausted by an enormous though short-lived effort, the exhaustion passes in a night, but this was a great fatigue brought about by the daily toll of physical energy. And so another working day. The arms, legs, neck and heart resume their load. The brain works. There is more energy expended, but less food consumed.

The lack of food, the cold and the

constant nervous tension wore out the workers. Jokes and laughter disappeared, faces became drawn, severe. People grew weak, moved slowly, stopped to rest often. A red-cheeked person was a rarity to be stared at and wondered about.

Whereas just a short while before, the whistle and explosion of shells had quickened the nervous system and alerted people, in November few paid any attention to exploding bombs. The thunderous artillery seemed far away, a useless, hoarse barking. People plunged themselves into their own cheerless thoughts.

Everyone knew that the city had little food, but only seven people knew the exact figures—it was a closely guarded military secret. On November 1 Leningrad had 15 days' stock of flour, 16 days' stock of cereals, 30 days' stock of sugar and 22 days' stock of fats.

There was almost no meat. Fat and sugar rations had to be cut, to far below those of other cities. The workers' monthly rations were set at 1.5 kilos (3.3lb.) of sugar and 600 grammes (about 1½lb.) of fats; the office workers' at one kilo of sugar and 250 grammes of fats; children's, 1.2 kilos of sugar and 500 grammes of fats; dependents, 800 grammes of sugar and 200 grammes of fats.

The 2,500 tons of sugar and 600 tons of fats given out as extra rations in September and October would have been a godsend in November and December. But in September no one had thought that the siege would

go on so long.

Even the malt flour stocks were running out. What was to be done? Stocks did not permit using rye flour in any quantity.

The trade port workers proposed using cotton-cake as food; in peacetime it had been used as fuel on steamers. Cotton-cake had never gone into food—it contained a poisonous substance, gossypol. But it was found that the substance disappeared when heated. The cotton-cakes were ground and added to the flour. Initially, the addition was only three per cent, but in five days the figure rose to ten per cent.

Some 4,000 tons of cotton-cake was found in the port—almost five days' supply of flour. Early in November the daily consumption of flour dropped to 880 tons.

Those working in food distribution faced an arduous job. Almost no horses were left, there was no surplus petrol, so the shop assistants had to transport supplies from the central warehouses to their shops themselves, either on sleds or on their own shoulders. They had to get up in the middle of the night to get the food there on time—and shops and canteens opened at 6 a.m.—and stay on after closing time, 9 p.m., to count the ticket receipts. They had little time left for sleep.

Almost all of them were women, many very young, who had been assigned this work which was particularly responsible and important in view of the blockade, by their local

Party and trade union branches.

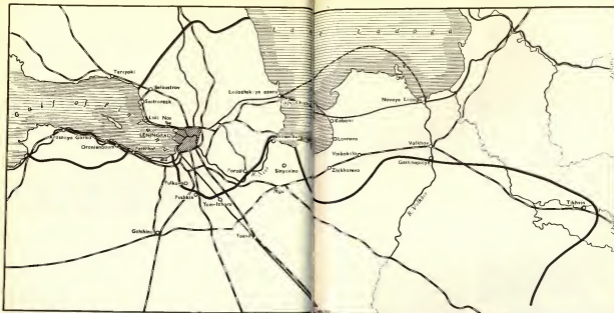
The head of the City Trade Department was I. A. Andreyenko, a most exacting person. Those who tried to profit from the people's misfortune feared him like death. But he was as exacting of himself: in distributing food and other benefits he did not permit the slightest departure from the norm for himself or others.

Food transportation to Osioovets continued in the teeth of great difficulties. The 56-mile distance from Novaya Ladoga to Osinovets took the barges 16 hours—which meant part of the run had to be made in daylight. The Nazis kept bombing the waterway. The ships' captains engaged in desperate manoeuvres to escape hits. Not all of them succeeded.

### Evacuees bombed

On November 4 the escort vessel *Konstruktor* left Osioovets for Novaya Ladoga with women and children evacuees aboard. Several miles off Osinovets the boat was spotted by a Nazi plane. The pilot was flying low and must surely have seen the women and children on deck. Nevertheless, he launched his attack.

The captain veered off his course and the bombs missed. Then the pilot made a second run and this time a bomb tore through the deck and exploded in the hold. The blast swept many women and children overboard into the icy water. It was impossible to save them, for the



ship had started to go down.

Few murderers can bring themselves to observe the agony of their victims, but that Nazi monster circled over the scene of horror to machine-gun the struggling human beings in the water.

Luckily, a gunboat which happened to be patrolling close by was able to tow the half-submerged *Konstruktor* to shore. But 204 people had lost

their lives. The wailing of the women who themselves survived, but lost their children in the depths of the lake, haunts the ears of witnesses to this day.

An early winter set in. November brought snow. On a visit to the troops, A. A. Zhdanov learned that advance Nazi units were equipped with skis and camouflage suits. Back in Leningrad, he summoned the

Supply and Logistics Chief, Major-General Laganov, to demand an explanation of why Soviet troops still had neither skis nor camouflage suits.

The suits, the general reported, would not be ready for about a week, because of a delay in placing the orders with the factories. As to the skis, there were just not enough in the Army depots.

The general added that the civilians

had skis. They did not need them, but collection would take time. The Logistics Service had not expected an early winter and, still less, early snow.

Said Zhdanov, "The Nazis have already put their units near Schlüsselburg on skis, although they can hardly use them. And we, who can, are not ready to do so. It is negligence, criminal negligence. We expected the

winter in December and it came early in November. Comrade Lagunov, I give you three days. If the skis and suits are not available by the end of that time, remember: we are in a besieged fortress, in which the laws of defence are severe with every violator."

Zhdanov valued General Lagunov for his knowledge, truthfulness and honesty. But where defence matters were concerned he never forgave even a minor shortcoming.

The general developed volcanic activity. Clothing factories produced suits day and night, and skis were collected everywhere and turned over to the troops. The order was carried out in time.

The Nazi troops redeployed and, from the direction of Chudovo, launched an offensive on Volkhov. The Soviet Fourth Army, which was defending that important town, was forced to retreat. The Nazis, sensing weakness in the Soviet defence, stepped up their pressure in a bid to occupy Volkhov in a sweep, reach the lake at Novaya Ladoga and thereby cut Leningrad's communications with the rest of the country. The Nazis entered Gostinopolye.

The defence of Volkhov was assigned to the 54th Army of General Fedyuninsky. The retreating right flank of the Fourth Army was also placed under his command. Transports of the Ladoga Military Flotilla carried 20,000 troops as reinforcements for the General's advance units. Another force of 3,000 was dispatched by air.

To strengthen the defence, Gen.

Fedyuninsky now boldly undertook extreme measures: the anti-aircraft guns covering Volkhov were shifted to the front lines and used as anti-tank artillery; two-thirds of the machine-guns were removed from the military launches and put on land. In two days the Nazi offensive was halted.

When the Nazis began their advance on Volkhov, the War Council issued an order to dismantle all the basic equipment of the Volkhov Hydro-electric Station and ship it east to the interior; the station with its dam, in case of immediate threat, was to be blown up at the commander's discretion. But it was not necessary to carry out the extreme measure. The staunch 54th Army kept the enemy off. Late in 1942 the station resumed the electricity supply to Leningrad.

#### Parachute mines

November 7, the 24th anniversary of the October Revolution, was marked by a grant of 200 grammes of sour cream and 100 grammes of potato starch for every child and five slated tomatoes for every adult. It was impossible to do more.

The Nazis marked the occasion in their own way. For the first time they dropped electro-magnetic mines, suspended on huge parachutes, on Leningrad. One fell on the Yegorov Engineering Works, creating a grave menace to that important munitions factory. The mine had to be defused immediately. But how? The local Air Raid Defence personnel, who had hitherto handled only delayed-action

bombs, knew nothing about these ten foot mines.

Engineer-Captain A. F. Litvinov, who arrived on the scene, had no experience in defusing such mines, either. Relying on intuition, he began by extracting the mine's small clock, then the large clockwork mechanism and finally the percussion fuse. The plant was saved. But in some places such operations failed. Several violent explosions occurred.

On November 8 German motorised units boldly drove a deep wedge into the Soviet defences and took Tikhvin, 50 miles east of Volkhov. Radio Berlin reported the capture every 30 minutes as a vital news flash. "Now Leningrad will have to surrender without German soldiers shedding their blood," blared Nazi propaganda.

In fact the blow was directed at a sensitive spot. With the loss of Tikhvin, trainloads of food could proceed no farther than the station of Zaborye, 100 miles from Volkhov. The only communication was by horse, along country roads.

It became imperative to build a motor road, some 125 miles long, by-passing Tikhvin. But even if the road were built, it would be able to take so little traffic that the city would not be sure of even starvation rations. Nevertheless, the besieged needed it like the breath of life. It was decided that it would be built by rear Army units and members of bordering collective farms.

On November 8, for the first time, the troops' bread rations were reduced—to a daily 600 grammes for

forward positions and 400 grammes in the rear. The meat rations were reduced, too; the 150 grammes a day for troops in forward positions dropped to 125, and the 75 for those in the rear to 50.

On November 9 Leningrad had enough flour for seven days, cereal for eight, fats for 14, and sugar for 22. There was no meat left in the city at all. At Novaya Ladoga there was enough flour for 17 days, cereals for 10, fats for three and meat for nine.

On November 13, the bread ration for the civilian population was cut again: 300 grammes for workers, 150 grammes for office employees, dependents and children. Total daily consumption of flour was now 622 tons.

November 15 saw the end of shipping from Novaya Ladoga to Osinovets: the lake had frozen.

In autumn 1941, the water route had been of great help to the besieged. From September 12 to the close of navigation it had been used to deliver 24,097 tons of grain, flour and cereal, 1,131 tons of meat and milk products and considerable amounts of fuel, military supplies and other absolutely essential defence goods.

#### Twenty days' survival

Compared to the needs of the population, 25,228 tons of food was not much. Nevertheless, those tons meant 20 days' survival, and in a siege each day counted. Workers of the river fleet, sailors, soldiers and officers, paid with their blood and



*For more than two months the majority of Leningraders had to make a piece of inferior bread like this (125 grammes) last a whole day*

often their lives for each ton of grain and meat saved from the air and land attacks of the invaders. Their valour will never be forgotten.

Through the City Party Committee, the War Council delegated several hundred Communists to search for food in cellars, railway

trucks and barges; everything that could be used as food was listed and taken to warehouses.

At the breweries and malt factories 110 tons of malt were gathered from under the floors. Layer upon layer of dust had for years been settling on the walls and floors of the



*A burst pipe cuts off water supplies. People bring pails to a hastily fixed-up stand-pipe in Nevsky Prospect, the main street*

flour mills. It was all meticulously scraped off. Each sack was shaken.

In railway trucks shunted into sidings 1,000 tons of flax-cake, 500 tons of flour, 100 tons of cod in barrels and 30 tons of fat were found.

In the commercial port 2,000 tons of sheep's entrails, which had been

intended for export in peace-time, were used to make a kind of jelly. But it required an addition of clove oil to disguise the unpleasant odour. Jelly was also made from the flesh side of young calves' hides, which were found in the warehouses of tanneries. Nobody worried about the



abominable taste. Jelly was put on sale instead of meat: 300 grammes instead of 100. Finally, jelly was made from flakes of bone and membrane.

Two tons of oil were used daily to grease pans at the bakeries. That was a luxury. The bakery laboratories experimented and developed a substitute—an emulsion of soapstock, which is a by-product of oil-refining. The bread crust tasted bitter as a result but the precious oil was saved.

After the freeze-up, food could only be delivered by air. The War Council asked the Government for transport planes. Though they were badly needed on all fronts, the request was met immediately.

#### Two trips a day

On November 16 meat in blocks, lard, smoked goods, tinned food, egg powder, condensed milk—everything that was compact—began to be airlifted to Leningrad.

At first the planes flew in from Novaya Ladoga. The distance was short, so one plane could make five or six trips a day. The Germans became concerned, and began bombing the Ladoga airfield. Concentrating planes there became dangerous, so two-thirds of the planes had to be based farther afield, from where they could make only two trips a day.

The transport planes flew in formations of six or nine: the Nazis were afraid to attack groups. But a plane that detached itself from the rest came under attack from enemy

fighters. They thus destroyed an LI-2, piloted by Zhantiev. It took off five minutes later than the rest. That cost the pilot and passengers—he was carrying evacuees—their lives.

But sometimes even single Soviet planes won over Messerschmitts. Another LI-2, flown by an experienced pilot, Panteli, was also attacked by a Messerschmitt. The Soviet plane veered and let off a burst of machine-gun fire. The Nazi pilot was killed and his plane went into a spin, broke through the thin ice of the lake and sank to the bottom.

However heroic the Soviet flyers, their planes were too few and too small to keep the huge city of Leningrad properly supplied with food. There was a crying need for a road over the ice.

On November 15, 16 and 17 the temperature stayed at 19 or 21 degrees Fahrenheit. The ice grew no thicker.

On the morning of November 18 the wished-for northerly wind blew. The temperature dropped to about 10°F. But the ice was still too thin.

On November 20 bread rations had to be cut still lower. The front line troops' diet was reduced to 500 grammes a day, and that of the rear troops to 300; workers' rations were down to 250 grammes, and office employees', children's and dependents' to 125—the notorious "one-eighth", a blockade term meaning one-eighth of a loaf of bread. The daily consumption of the diluted flour fell to 510 tons.

The cutting of the bread ration by more than one-third within a short

period of time had a disastrous effect on people's health. Workers, office employees and particularly dependents suffered severe hunger. Men and women faded away before one's eyes, moving with difficulty, speaking in whispers. Life fled from exhausted bodies.

On November 20 the ice was seven inches thick. To wait longer became impossible. To test the firmness of the ice a horse caravan was sent across the lake. The starving horses could hardly move. Many fell and were unable to rise. The carters slaughtered them on the spot, cut up their carcasses and sent the meat to town.

On the morning of November 22, following the horses' trail at lengthy intervals, truckloads of long-awaited food slowly headed for the city. That day the deliveries amounted to 33 tons of food. On the following day the figure dropped to 19 tons. Though no lorry carried more than three or four sacks of food, the ice was still unsafe and several trucks broke through and went to the bottom.

The ice was so thin, and so much of the lake surface remained open water, that between November 23 and 30 several vessels of the Ladoga fleet managed to get through to Ononovets, bringing in 800 tons of food supplies.

A group of researchers headed by Professor V. I. Sharkov started work on new techniques of hydrolysis to obtain food from cellulose. The scientists received every assistance from the Party Committee of the

city. Despite an acute shortage of power the Institute, which was experimenting with turning wood into edible cellulose, was granted unlimited use of electricity.

At last the edible cellulose was obtained; the job of producing it was assigned to the Hydrolysis Spirit Plant and the Stepan Razin Brewery. The new bread-making recipe was: 73% rye, 10% edible cellulose, 10% cotton-cake, 3% maize flour, 2% dust from the walls of flour mills and 2% sack dust.

#### Like bitter grass

The cellulose made the bread look exquisitely white and its crust brown, but it tasted like bitter grass. A total of 18,000 tons of bread substitutes was used at this time.

The same cellulose produced yeast and yeast milk. Nearly all city caanteens had yeast soup on the menu. A plate of such soup was often the only meal of the day for thousands and thousands of Leningraders.

Deliveries across the ice increased: 70 tons were transported on November 25. Three days later the figure leaped to 196. But November 30 brought a thaw, slashing deliveries to 62 tons. Between November 23 and 30, horses and trucks brought in a total of 800 tons of flour—less than two days' consumption for the city—and 40 trucks sank or were stranded in mushy ice.

Even including edible cellulose, the city had enough stocks to bake bread for only six days. The weather was unstable and the ice grew no thicker. What was to be done?

It was impossible to cut bread rations any further. A decision was made to use the emergency stocks of flour that were kept on special military vessels anchored at Kronstadt, and also Army iron rations.

It was famine now. In November 11,085 people, mostly elderly men, died from starvation. Women of the same age and younger men resisted better.

Death came to people in the street—as they walked they fell, and never rose again. Death came at home—they went to sleep and woke no more. Death came at work—people died at their machines and lathes.

It was hard to bury the bodies. There was no transportation. The dead, without coffins, were hauled on sleds by two or three relatives along the endlessly long streets. Often, unable to complete the trek to the burial grounds, exhausted people were forced to abandon the body of a loved one.

But Leningrad fought back. By the end of November the Air Raid Defence had shot down 555 enemy planes. The raids abated.

## DECEMBER

It was the hungriest month of all. The worker's daily ration was 1,087 calories—about one-third of an adult's normal requirements. For the rest of the population it was still less: office employees, 581 calories; children, 684; dependents, 466.

But in December even these unbelievably skimpy rations were not received in full. A worker got 350

grammes of fats instead of the 600 he was entitled to, and 800 grammes of cereal instead of 1,500; the office employee got 150 grammes of fats instead of 250, and 550 grammes of cereal instead of 1,000; the dependent was given half the 200 grammes of fats he was entitled to, and only 400 of his 600 grammes of cereal. Only the children received their full 500 grammes of fats and 1,200 grammes of cereal.

The meat ration for that month was sold in full: 1.5 kilos to workers, 800 grammes to office employees and 400 grammes to dependents and children. But what kind of meat! There was a special scale of equivalents under which one kilo of meat was equal to 750 grammes of canned meat, or two kilos of offal, or 170 grammes of egg powder. There was no choice and people took whatever they were given—offal, jelly made from sheep's intestines, or egg powder.

To combat their monstrous hunger people tried everything: they furiously hunted cats which had survived, caught rooks, made jelly out of carpenter's glue and utilised whatever was edible out of their home medical kits—castor oil, glycerine, Vaseline.

The adolescents' lot was the worst. Children's food cards were distributed up to the age of 12. Consequently, children aged two and 11, with a vast difference in needs, received the same amount of food. When a child turned 13 he went over to the dependents' ration, the most meagre, whereas his growing body demanded the most nourishing food at this age.

In December 1941, 34 per cent of the population were on workers' rations, 17 per cent on office workers', 30 per cent on dependents' and 19 per cent on children's. So two-thirds of the people had to survive on their tiny "one-eighth" of bread.

Army provisions were not much better. The daily ration of the front-line soldier was equivalent to 2,593 calories. Further cuts would have impaired the troops' fighting efficiency.

Bread for the troops was produced at the city bakeries. Delivery of bread to the front line presented no difficulties: the front ran right by the city gates.

### Fair shares

Food distribution at the front was organised in such a way that every soldier knew he was getting his ration in full. Two or three men with vacuum containers were detailed from each squad to the battalion kitchen. The cooks handed out the food in the presence of the officer on duty and the company sergeant-major. The food in the containers was delivered to the unit and distributed to the men and officers so each man could see with his own eyes that everything was just.

The male cooks in many units were replaced by women. The food improved and the kitchens were kept cleaner.

Lack of tobacco became a problem. Soldiers pined for a smoke. Even hold-ups in food supplies did not affect their spirits as much. The soldiers just could not be left without tobacco.

Twenty-seven tons of hops were

found at the breweries and used as an additive to tobacco. Another additive was fallen leaves. Maple leaves were the best. Tobacco dust was collected from under the factory floors.

As part of the economy drive a soldier was offered 200 grammes of chocolate as an alternative to 300 grammes of tobacco—his monthly ration. The ersatz tobacco crackled as though it were gunpowder and left an unpleasant aftertaste, but even so, few servicemen volunteered for the exchange.

Hunger can drive people to take desperate actions. But what was most remarkable in besieged Leningrad was that law and order was maintained, not only by the authorities, but also by the people themselves.

One evening a shell hit a bread truck at the corner of Rasstannaya and Ligovka streets. The driver was killed and the front half of the lorry was sheared off as if by a stroke of a scythe. Loaves of bread were scattered all over the pavement. Darkness made a perfect cover for anyone to grab a loaf and run. But passers-by saw the smashed truck and the bread, linked hands to safeguard it and waited until the bakery sent another truck to pick up the loaves.

Another evening a thickset man entered a bakery in the Volodarsky district. He gave the customers and the two saleswomen a sullen look, suddenly jumped on the counter and began to throw down loaves from the shelves, shouting, "Take the bread, they want to starve us to death! Demand bread!" Seeing that nobody was touching the loaves, the stranger



*The morning after one of the frequent air-raids*

struck one of the women and rushed for the door, but the customers seized the man and turned him over to the authorities.

There is an Institute of Plant-Growing in Leningrad. Until 1939 its director was a world-famous biologist, Dr. Nikolai I. Vavilov. Under his direction the institute built a unique collection of seed grains from 118 countries. By the beginning of the war the collection contained 100,000 specimens of wheat, rye, maize, rice and other grains and leguminous crops.

The staff realised that the authorities had other things on their minds, and knew that no one would hold them responsible if the seed specimens vanished. But the scientists were set

on saving the collection. The seeds were placed on special shelves and guarded round the clock. When attacked by rats, they were put in metal boxes. The collection drew marauders, but they were beaten back.

More fearsome than rats or marauders was hunger. In December many members of the staff were unable to get up from their beds and their work had to be taken over by those who could still move. One morning the staff learned that one of their colleagues, A. Y. Moliboga, had perished in a fire at his flat. He had been too weak to escape from the burning apartment block. Soon after his tragic death, S. A. Egis, Doctor of Biological Sciences, and D. S. Ivanov, a rice specialist, died of malnutri-



*The graves of Nazi soldiers killed near Leningrad*

tion. Another 28 members of the staff later suffered the same fate.

To their last breaths, all of them were concerned for the safety of the collection. When they were told it was under guard and intact, their faded eyes would momentarily brighten and on gaunt faces a brief smile would appear. Their lives were dedicated to science, and the knowledge that they had carried out their duty filled them with a joyful feeling which sustained them to the grave.

With their colleagues dying *en masse*, the shrinking group of survivors, headed by the director of the Institute, I. G. Eichfeld, maintained their firm determination to preserve the unique collection at whatever cost.

Every day, barely able to move their legs, they would appear at their posts. The fate of the collection depended on the tenacity of a small, famished group of men. To stand guard over the seed grains and slowly starve to death was inhuman torture. And still, out of the depths of suffering, these people emerged triumphant.

The collection of grain crops, created over the years by the efforts of N. I. Vavilov and his colleagues, was preserved in the name of science by people who were selfless in their devotion to its cause; as one in their solidarity, views, and willingness to sacrifice life.

The city's wounded found themselves in particularly dire straits. Recovery called for good food, but there

was none to be had. The War Council decided to allocate to the wounded 20 grammes of egg powder, five grammes of powdered cocoa and two grammes of dried mushrooms a day over and above the regular rations.

The wounded needed blood transfusions, but starving people could donate none. As from December 9 donors were daily given an extra 200 grammes of bread, 30 grammes of fats, 40 grammes of meat, 25 grammes of sugar, 30 grammes of confectionery, 30 grammes of cereals, 25 grammes of fish and half an egg.

#### Books for fuel

There was not enough fuel and the buildings were freezing cold. Wood was needed to boil water, but there was no wood. Furniture, books, fences were burned; wooden houses were torn apart and used for fuel. A great many in Okhta district were thus knocked down and used to heat flats and hostels. Unfortunately all these materials burned swiftly, went up in smoke like so many fireworks.

In normal circumstances, when dwellings are provided with fuel, a person does not stop to think just how much fuel a city the size of Leningrad requires. In fact, it takes at least 120 trainloads of firewood daily to guarantee more or less normal conditions. Instead, into the greedy maw a mere three or four trainloads of fuel were thrust daily. It was impossible to do more because the wood and peat stocks did not permit it, and the blockade prevented fuel from coming through.

No fences, houses, sheds or

furniture could make up for the acute lack of wood and save people from the cold. The workers engaged in peat-cutting or wood-chopping were given 375 grammes of bread daily. These people worked in snow up to their waists in the biting cold, and needed infinitely more food, but it was not to be had. Homes remained without light, water or heat.

If, in spite of icy steep steps and great weakness, it was still possible for a person to bring home water, then how to boil it became an almost insurmountable problem. In December the City Executive Committee opened boiling water distribution centres. This lightened the burden considerably for the population.

Of all the theatres, only the Operetta held out.

A fantastic scene rises before my eyes. December. Outside, the temperature was minus 13 degrees Fahrenheit. Inside the unheated theatre it was not much warmer, but it was packed full. The audience wore their coats and felt boots.

At 3 p.m. a performance of *Rose-Marie* began. Despite the cold the actors were in their flimsy costumes; their faces were gaunt and pale, but they smiled. The ballerinas were so thin it seemed they were just about to snap in two. But they performed with *élan*, evoking long unheard laughter.

During the intervals many of the actors fainted. Will-power triumphed; they got to their feet and carried on.

The show was often interrupted by air raid warnings. Then the audience was led to a bomb shelter while the

performers, in make-up and costume, climbed to the ice-covered roof and prepared to dispose of any incendiary bombs that might land on the building. All-clear signals brought them back to the stage.

After the performance the audience rose to pay a tribute of several minutes' silent admiration to the cast: nobody could muster the strength to applaud.

At last, on December 6, the 125-mile road skirting Tikhvin was completed. It was a hard route. In many places lorries which met could hardly pass each other, and sharp rises and dips made driving dangerous and accidents inevitable. Fortunately, it proved hardly necessary to use the road.

The troops of General K. A. Meretskov received an order to retake Tikhvin. Meretskov began to put pressure on the flanks. Fearing encirclement, the Nazis rushed up large reserves. But it was too late. On the night of December 9 Tikhvin was recaptured. More than 7,000 enemy dead, with many guns, tanks and trucks, remained on the battlefield. Soviet forces continued their advance and hurled the Germans far beyond Volkhov.

Without exaggeration, the liberation of Tikhvin saved hundreds of thousands of Leningraders from death by starvation. A motor column which left Zaborye on December 6 to proceed along the new road did not return until 14 days later, having averaged only 21.7 miles a day. In three days, 350 trucks got stuck between Yeryomina Gora and Novaya

Ladoga alone.

It can be imagined what would have happened if that road had remained Leningrad's sole supply artery. Even under ideal conditions, the road from Zaborye could have handled no more than 700 tons of loads daily. And in the worst December days the daily flour requirement was 510 tons, not counting other provisions, petrol and munitions. The smashing of the Nazis at Tikhvin was almost as vital to the future of Leningrad as the breaking of the blockade in January 1943.

#### The end of von Leeb

The setbacks at Leningrad ended the career of Field-Marshal von Leeb. Hitler removed him from command. To avoid undesirable suspicions both in Germany and in other countries about the poor situation at the front, it was announced that by his own request von Leeb was temporarily retiring for reasons of ill-health.

Von Leeb's star had risen with the victories in the West, but within five months of the opening of the war in the East, he disappeared from the scene.

Von Leeb was replaced by Colonel General von Küchler. In May 1940 von Küchler's Army had entered neutral Holland. After smashing the resistance of the small but brave Dutch Army, von Küchler crossed into Belgium, captured Antwerp, invaded France and finished the campaign at Dunkirk.

All Hitler's hopes were now centred on a successful conclusion of the blockade—closing the ring

*"The Road of Life"  
across the ice of Lake Ladoga.  
Leningrad's only supply line  
in autumn and winter, 1941-42*



around Leningrad and starving the city into submission. The distance between the right flank of the Finnish forces on the River Svir and the German units east of the Mga was about 75 miles. In order to break the resistance of the defenders of Leningrad, the command of Group North decided to make a deep swing around the city to the east. With this end in view, the 39th Motorised Corps, supported by a large number of tanks and commanded by General Schmidt, was set the following tasks:—

- (a) To close the approach to the city over Lake Ladoga;
- (b) to link up with the Finns on the River Svir;
- (c) to take Tikhvin and then move on Vologda and cut communications with the Karelia front.

The battle took on the character of an intensive struggle for control of routes: on the German side, to destroy the sole remaining artery feeding the besieged; on the Soviet side, to break through the blockade and gain control of other supply routes.

The liberation of Tikhvin made it essential to restore ruined railway bridges between Tikhvin and Volkhov as quickly as possible. Meanwhile it was imperative to rush whatever food stocks Novaya Ladoga possessed to Leningrad.

The ice grew thicker and lorries no longer broke through it, but little food was yet being carried due to poor organisation of transport.

Zhdanov and Kuznetsov arrived

at Lake Ladoga. They studied the route and the work of the motor columns and ascertained the reasons for the problems. After their return the War Council took several important decisions: each truck was made the responsibility of its driver; if one truck had two drivers it had to carry 2.25 tons a day; drivers were offered bonuses; finally, the route was divided into sections.

#### Road of Life

The question arose of whom to put in charge of that vital artery? Most of the Council members named Major-General Shilov of the Supply Service, who had considerable experience in transporting loads by water. Offered the new post, the general did some thinking—he realised what a tremendous responsibility to the city and the entire country would fall on his shoulders, and also how difficult things were with that road of ice.

General Shilov coped with his task excellently, and effectively managed the road transport until the very day the blockade was smashed.

Then came severe cold. The wind seared faces and penetrated clothes. Drivers' hands froze, yet the lorries kept the lifeline to Leningrad open. That was when the Russian language acquired a new expression, *doroga zhizni*, the Road of Life.

Tractors, graders and wooden snow-ploughs kept the road clear of snow. Carpenters built bridges over cracks in the ice. Bomb craters were marked by fir branches.

For their arduous work the

drivers and traffic controllers were given extra daily rations of 500 grammes of bread, 125 grammes of meat, 40 grammes of fat, 35 grammes of sugar, 190 grammes of cereal and 50 grammes of vodka.

Trains for Leningrad arrived at Tikhvin, where the loads were transferred to lorries which travelled from there via Novaya Ladoga and farther down the ice highway to Ladozhskoye Ozero. The one-way run was 118 miles.

To increase turn-round, the accounting and loading system was simplified to the utmost. Goods were not weighed, but were packed in sacks and cases, the weight being estimated by the number of packages. The number of these was written on a receipt, which the driver produced before unloading.

Under this system dishonest drivers could steal part of their load, either for themselves or for sale. They could remove a quantity of flour from the sacks, or canned goods, chocolate or coffee. The number of sacks or cases remained unchanged, but poor packaging made it impossible to tell theft from natural losses: the sacks were flimsy and patched and the cases, made of thin slats, broke easily.

To prevent theft *en route* was a responsibility of traffic controllers, political workers and the drivers themselves. Thieves were immediately removed from their jobs and punished. In the beginning there were quite a few cases of petty theft, but before long they stopped. The strongest deterrent in the long run was public opinion. The possibility of being

disgraced before their fellow-drivers killed any temptation to steal.

On December 22, 700 tons of food were delivered across the lake. The next day the figure rose by 100 tons. At last deliveries exceeded consumption. But in the absence of reserve stocks the city ate its food, so to speak, off the lorries, and any delay in deliveries would have been a catastrophe. Nevertheless, on the evening of December 24, on a proposal by Zhdanov, the War Council decided to increase the bread ration.

To raise bread consumption when the city depended on daily deliveries! It seemed like a leap in the dark. A leader commanding respect can make no worse mistake than to raise people's hopes with a rash promise and then fail to live up to it. But it was a correct decision. Tikhvin was securely in the hands of Soviet troops. Now everything depended on the organisation of transport.

#### Unforgettable day

On the morning of December 25 the people of Leningrad went to the shops as usual and learned that the bread ration had been increased. The heartening news spread through the city like wildfire. Despite freezing weather, all who could walk came out to share the common joy. The streets became alive with people. Strangers embraced, cheered and wept. Pinched, pale faces broke into wide smiles. It was an unforgettable day.

The workers were now given an addition of 100 grammes of bread over their 250, and office employees, dependents and children received an

extra 75 grammes over their 125. That was a victory for the city's defenders. Of course, the new rations were still miserably low and hunger persisted, but each person believed that the first improvement in rations would soon be followed by others.

Transports from Novaya Ladoga to Leningrad went well. But few trains came to Tikhvin: the railway between Yaroslavl and Rybinsk was jammed with troop trains. This threatened the newly introduced higher food rations.

The impending danger was reported to the Government. Later that day the War Council received a reply from A. I. Mikoyan, saying that the Government had decided to deliver 50,000 tons of flour and 12,000 tons of other food to Leningrad, and that despite immense difficulties, the Railway Commissariat promised to ensure a fast run to the trains carrying supplies for Leningrad. The loads would arrive in Tikhvin and later, when bridges were restored, in Volkhov.

That was good news, but the city authorities were still apprehensive. There was too much room for delay between the decision, even a top authority decision, and implementation; especially now, when the railways were jammed and stations were being bombed.

But in three days these fears were dispelled. Trainloads of flour and cereals began to arrive one after another. Many obstacles were overcome by the enthusiasm of the workers, in Seima, Rybinsk and Saratov. Flour-mill workers would not go home

until they had sent off the last train-load of flour for Leningrad. Wives took over from their husbands when the latter became exhausted. On the sides of the goods trucks, people carefully printed, "Food for Leningrad".

Tikhvin was like a giant ant-bill. Thousands of workers and soldiers unloaded the trains, which arrived round the clock. Lorries moved off in a continuous flow.

Meanwhile the Red Army forced the enemy back from the stations of Zhikharevo and Voibokalo, and work began to build the Voibokalo-Tikhvin branch line as fast as possible.

Late in December an unpleasant situation arose: long queues formed in front of the district food offices to replace lost ration cards. In October, 4,800 duplicates were handed out. In November the figure rose to 13,000. In December it shot up to 24,000. The losses snowballed.

This was a matter for concern. Most of the lost cards had evidently been found and were being used by new owners. Still worse, it was clear that many of the "losses" were merely a pretence to get extra food. What was to be done?

Refuse to replace lost cards? A cruel measure, for without cards food could not be bought at any price. But there was no way of telling who was genuine and who was lying.

The reasons given were almost the same in all cases: "I lost my cards escaping from a shelling". If their homes had been destroyed people would say that the cards had been in the house. And air and artillery bombardment was still going on.

After stormy debates, the War Council decided to stop the replacement of cards by district Soviets; duplicates would now be given by the City Council, and then in emergency cases only. The "losses" quickly dropped, eventually petering out altogether.

An extensive network of general treatment stations was set up to help the weakened population: at them heart stimulants and glucose were given, and a little mulled wine. This saved many lives. But every day more and more adults and children succumbed just the same. Arms and legs grew weaker, bodies went numb, and people died in a torpor which gradually reached their hearts.

In December, 52,881 people died of starvation.

## JAN.—FEB., 1942

Leningraders received a good New Year present: at 5 a.m. on January 1 the Tikhvin-Volkhov-Voibokalo railway line was opened.

The lorry run was reduced to 35 miles. Now the transfer from train to lorry took place at Voibokalo, from where the lorries proceeded by road to the lakeside village of Lavrovo, there descending on to the ice and crossing to Ladozhskoye Ozero station on the western shore. Daily lorry deliveries totalled 1,500 tons.

A bottleneck developed immediately on the last lap: Ladozhskoye Ozero-Leningrad. In peace-time the station had handled one train a day—it was not even equipped with a pump-house. But now the station had to

dispatch six or seven trains daily, which required the facilities of a good railway junction.

Ladozhskoye Ozero and the whole of the Irinovka railway line needed reconstruction. But this would have taken time, and the city needed food every single day. The trains should have raced along; instead they crawled.

Station workers frequently had to carry water for locomotive tenders in pails. The train crews went into the forest and chopped down trees, firing the boilers with frozen wood which sizzled and crackled more than it burned.

The trains were hauled by two locomotives dragging along at some seven miles an hour. When they stopped it took a long time to raise steam. So stations began to keep locomotives under steam, fed with drier wood.

When a train pulled in, the "tired" locomotive was replaced by a "fresh" one. This system required many locomotives, but traffic became brisker. Engine-drivers and firemen were given an additional 125 grammes of bread a day.

### Pails from the Neva

In January the most feared thing happened—water supplies broke down. What Nazi bombs had failed to achieve was accomplished by the intense cold. Water and sewage pipes froze. Water had to be carried in pails from the Neva, the Fontanka, the Moika or the Karpovka rivers.

The cold was as terrible as the hunger. Nearly all windows were broken and boarded with plywood.

Furniture, books, fences and wooden houses went for firewood. But however cold they were, the Leningraders spared the trees in the parks and gardens. Visitors can today admire the centuries-old trees in Leningrad's Summer Gardens, Mikhailovsky Gardens, Park of Culture and many other public gardens. Every such tree is a monument to the Leningraders' loving attitude to their city.

Washing became a problem. Only a few bathhouses were occasionally heated.

The Nazis attempted to play havoc with the ice-road traffic. They shelled the road with long-range guns and bombed it. The bombs would plummet through the thick ice and explode on the lake bottom, and as the lake was deep the explosions did not disturb the ice.

Low-flying Nazi aircraft machine-gunned the lorries—there was no place for these to hide, so they presented an easy target. To protect them, Soviet fighter planes patrolled constantly over the road. The time was past when the Nazis had superior air speed. Now Soviet aircraft entered air battles on equal terms and were able to destroy and chase away enemy planes.

One night in mid-January two enemy companies on skis and in white camouflage suits made a sortie across the lake from Shlisselburg in the direction of Osinovets. They got right to the road, but were detected there. Sustaining losses, they retreated.

After that episode the front

Command detailed a special unit to guard the road. Machine-gun posts, covered with blocks of ice and snow, were set up all along the line. Soldiers lay on straw mats, with chemical warmers in their pockets. There was no way to escape from the piercing icy wind. Despite these severe conditions, the Road of Life was protected.

On January 22 the State Defence Committee adopted a resolution on the evacuation of 500,000 of Leningrad's population. A. N. Kosygin, Deputy Chairman of the Council of People's Commissars, who was placed in charge of the job, arrived in the city. Now food was moved over the frozen lake from east to west and emaciated Leningraders from west to east.

#### Food at last

The moment Leningraders got out of the enemy encirclement they were fed—with soup and meat—food which for a long time they had only dreamed of. The smell of bread made of unadulterated rye flour made their heads spin. They were given much care and attention. Everyone tried to help them. Before the end of January 11,296 people were evacuated.

On January 24, a month after the first food ration increase, came a second. Front-line troops had their bread ration raised to 600 grammes, workers to 400, office employees to 300 and children and dependents to 250.

In February, after a five-month interval, paraffin went on sale again.

The provisions coming daily across the lake were adequate to provide the civilian population and Army with the meagre blockade rations. But to build up a surplus proved impossible. And the impending Spring threatened to deprive Leningrad of the roads it had.

The transport of goods had to be increased before the Spring thaw set in. This could be achieved either by increasing the number of lorries or by reducing their run. It was decided to do the latter. On February 10 a railway stretch between Voibokalo and the village of Kobona was brought into service, and it became possible for trains to steam right up to the shores of the lake. The lorry run was halved; only 15 miles over the ice remained to be covered.

February 11 brought another increase in the bread rations. The workers could now get 500 grammes a day, office employees 400, dependents and children 300.

Growing numbers were being evacuated. In February the city sent 117,434 people east. A. N. Kosygin also attached importance to the removal of valuable industrial equipment, which at the time lay unused in Leningrad but was badly needed in the east.

But I feel I must warn the reader against overestimating the January and February successes. Severe hunger persisted. People still died in the streets and in their beds and collapsed at their machines in the factories. With city transport still not operating, burying the dead

remained a continuing problem.

Special lorries picked up the bodies in the streets, day in and day out. Routes leading to cemeteries were heaped with frozen, snow-covered corpses. People were in no physical condition to get their dead to cemeteries or to dig graves. Local Air Raid Defence teams blasted small craters and buried scores and hundreds of nameless bodies in mass graves.

Those two months recorded the highest mortality rate—starvation killed 199,187 people.

## CONCLUSION

Spring was on the way. Since the sewage pipes had frozen in January, garbage had been piling up in the streets. Warmer weather could easily set off epidemics. Leningraders turned out to give their city a clean-up. In March and April 300,000 people worked daily cleaning the streets, courtyards, staircases, cellars and cesspits. All apartments were checked for cleanliness.

Epidemics were prevented. Remarkably, in the dreadful winter of 1941-42 the incidence of infectious disease was half what it had been in the previous, pre-war winter. There was not a single case of spotted fever, a classical concomitant of mass disasters. The Spring of 1942 saw only an outbreak of scurvy, the result of lack of vitamins.

The ice road was operational until late in April. Water was up to the hub, but the lorries carried on. A

total of 514,069 people were evacuated by the road and another 448,010 left the city by water in the summer. That ended the evacuation campaign.

Now the most acute problem was fuel. It was impossible to deliver coal along the arduous route used for food, with its numerous stops for reloading. It was decided to lay an oil pipeline across the bottom of the lake.

Soon specialists and goods trucks laden with equipment and machinery arrived on the eastern shores of Lake Ladoga. Under difficult conditions work began on the 20-miles-long pipeline, and through the determined efforts of pipeline engineers, experienced workers and military units it was completed by June 16, 1942.

This meant that another serious problem had been solved: Leningrad was assured of fuel in needed quantities at any time of year. The wheels of industry began to turn with increasing speed and the productive capacity of the city revived.

Now time favoured the besieged: stocks of food, fuel and munitions were growing. The remaining population was able to work; 70 per cent of the inhabitants now possessed workers' ration cards.

The question arises: how was it possible that the Germans permitted the extension of the railway line to Kobona, the construction of the oil pipeline across the lake, the mass evacuation of the population, the heavy shipping? After all, these



measures wrecked their plans for starving the city into submission.

The answer is: the Germans did not remain passive onlookers at the teeming activity of Soviet people hastening to the aid of the besieged. The water route across Lake Ladoga was strewn with mines (including magnetic ones), they made commando raids from barges and launches brought from the North Sea, they bombed Kobons, Osinovets and the transport.

In the Spring and Summer of 1942 alone, the enemy made nearly 5,000 air-raids on the Ladoga route and dropped 6,400 bombs. The Germans shot-up barges, dropped depth-charges in an attempt to halt the construction of the pipeline. Quite often their efforts were crowned with success. The defenders suffered heavy losses, but the enemy was unable to undermine the bold plan conceived.

Von Kuchler was meticulous in his reports on the progress of the siege. He informed the Nazi Supreme Command in detail about how many ships carrying people were sunk, how many with cargoes, and when; how many mines or bombs were dropped and how many shells fired. Can any other general in history have been responsible for the deaths of as many civilians as von Kuchler?

In the summer of 1942 his efforts were appreciated. For the air and artillery raids on Leningrad, for the hundreds of thousands of victims of starvation, von Kuchler was made Field-Marshal.

But things were not going too well for the Germans. In January 1943 the troops of the Volkhov and Leningrad fronts struck at the enemy fortifications south of Lake Ladoga from two directions. On January 18 Shlisselburg was recaptured—the two fronts joined. The blockade was broken!

The first thing was to restore railway communications with the rest of the country. Soon the first train from the heart of the country arrived in Leningrad.

A year later the hour of retribution arrived. In January 1944 the troops of the Leningrad front, from the vicinity of Oranienbaum and Pulkovo, went over to the offensive and, supported by the Volkhov and Baltic fronts, drove the Nazis south-west.

The end of the blockade signalled the end of von Kuchler's career: the field-marshal was forced to retire. But it was not von Kuchler's fault that Leningrad held out and won. He had done all he could.

During the blockade 632,000 people died of starvation. Many authors contest the figure. British journalist Alexander Werth, in his book *Russia at War, 1941-45*, refers to a well-known music composer who gave him the figure 900,000. The authors of *Defence of the New Fortresses* give the figure as "at least one million people". These figures are apparently based either on rumours or on erroneous estimates.

*continued on Page 176*

*America's tribute to the  
people of Leningrad—the citation  
from President Roosevelt*



In the name of the people of the  
United States of America.

I present this scroll to the  
City of Leningrad

as a memorial to its gallant soldiers and  
to its loyal men, women and children who  
isolated from the rest of their nation by the  
invader and despite constant bombardment  
and untold sufferings from cold, hunger  
and sickness, successfully defended their  
beloved city throughout the critical period  
September 8, 1941 to January 18, 1943, and  
thus symbolized the undaunted spirit of the  
peoples of the Union of Soviet Socialist  
Republics and of all the nations of the  
world resisting forces of aggression.

May 1, 1944

Franklin D. Roosevelt

Washington D.C.



*Peter the Great  
comes out of hiding in 1944,  
restored to  
his traditional place  
by old men and girls*



Perhaps the victims of famine were added in with the victims of bombings and shellings.

The figure 632,000 is taken from the monthly reports of the City Health Department and is the figure quoted by the Board for the Investigation of Nazi Crimes, which worked in Leningrad. There is no reason to question it. Life in Leningrad was grim enough. There is no need for historians to resort to exaggerations.

Altogether, 17,000 Leningraders were killed by bombs and shells; 840 factories and 53.5 million square feet of housing were destroyed.

What is the explanation for the barbaric methods resorted to by the Hitlerite forces in waging war? At the Nuremberg War Crimes trials Keitel said, "Hitler strongly emphasised that the war (with Russia) was the decisive battle between two ideologies, and this fact ruled out those methods which we military people understood and which were regarded as the only proper methods in keeping with international law."

Thousands of messages of congratulation were sent to the Leningraders from all over the country and from abroad. President Franklin D. Roosevelt sent the Hero City a special citation—see page 173.

After the war von Kuchler was arrested by the American occupation authorities. In 1948 a military tribunal sentenced him to 20 years' imprisonment. But by 1953 the butcher of Leningrad was released "for reasons of health and age".

In 1947 German doctors told the world about the death from bunger

in the western zones of their country of German people who received a daily ration equivalent to 800 calories.

"We German doctors deem it our duty to tell the world that what is going on here constitutes the direct opposite of the 'upbringing in the spirit of democracy' which we had been promised; on the contrary, it is the destruction of the biological basis of democracy. Under our very eyes a great nation is being destroyed spiritually and physically, and no-one will be able to escape responsibility for this, if he does not do all in his power to save and succour."

In fact, as Josue de Castro points out in his book *The Geography of Hunger*, the Allies were far from entertaining the idea of starving the people of Germany. "The food rations established in post-war Germany were a natural consequence of the devastating war and the world economic breakdown it had caused."

When hunger touched Germany—through her own fault—German doctors found trenchant words to describe the "destruction" of "a great nation". These same doctors had no words of protest against their own compatriots when they deliberately inflicted terrible sufferings on the population of Leningrad.

Now memorials have been built over the common graves in Leningrad. The flame burns bright at the Piskarevskoye Cemetery. The Hero City has been fully restored, has grown, has become more beautiful. But the people of Leningrad will never forget the tragedy and heroism of 1941-44.

## RUSSIAN FOR YOU

Урок третий

Lesson Three

### Телефон



Миша: Послушай, Лена, тебе не кажется, что пора пригласить в гости Колю? Давненько он не был у нас.

Лена: Ты, пожалуй, прав. Позвони ему.

Миша: Сейчас. Случайно не помнишь его номер?

Лена: 2515795.

Миша: Спасибо. Правда, не знаю, смогу ли я про-рваться<sup>1)</sup>. Ведь его деловая мама сидит на теле-фоне<sup>2)</sup> часами.

Лена: Ничего, попробуй.

Миша: Так я и знал! Занято! Опять она висит на теле-фоне<sup>3)</sup>.

Лена: Не кипятись<sup>4)</sup>. Немного терпения<sup>5)</sup>. Давай я наберу<sup>6)</sup>, у меня лёгкая рука<sup>7)</sup>.

Миша: . . . Ну, как? Дозвонилась?<sup>8)</sup>



Лена: Нет, всё время частые гудки<sup>9</sup>). Может быть, что-то с телефоном?<sup>10</sup>

Миша: Как бы не так! А вообще-то можешь проверить.

Лена: А как?

Миша: Набери первые три цифры того телефона, который хочешь проверить, потом 05-61. Там спросишь.

Лена: Ну вот. Занято.

Миша: Ничего себе!<sup>11</sup>). Куда ни кинь, везде клин!<sup>12</sup>). Послушай, а может быть Колина мама говорит сразу по двум телефонам?

Лена: Не смешно!<sup>13</sup>). Чем острить, лучше бы придумал что-нибудь.

Миша: Пожалуйста: давай я отправлю ему телеграмму. Мол, «в связи с занятостью<sup>14</sup>) телефона прошу срочно связаться. Нежно целуем». Как?

Лена: Марк Твен по сравнению с тобой — ноль без палочки!<sup>15</sup>

Миша: Ну, попробую последний раз... Алло, Коля?... Наконец-то!<sup>16</sup>) Ты что — забыл повесить трубку!<sup>17</sup>

что ли? ЧТО? Подожди минутку, я расскажу Лене... Лена, этот тип<sup>18</sup>), оказывается, страшный меломан. Какой-то его приятель достал редкую запись Рихтера и проигрывал её по телефону, а Колечка наш слушал.

Лена: Хорош гусь!<sup>19</sup>)

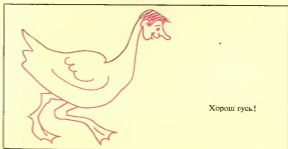
Миша: ... Ладно, старик<sup>20</sup>), мы хотели позвать тебя на субботу. Как ты?<sup>21</sup> ... Вот и отлично. Значит, до субботы... Что-нибудь в районе семи<sup>22</sup>)... Да, кстати, скажи своему приятелю, а заодно и маме, что скоро у нас введут такую же систему оплаты за телефон, как в Америке... Как, ты не знаешь? Там нужно платить за каждый звонок, да ещё за продолжительность каждого разговора, понял? А у нас платишь себе<sup>23</sup>) два пятьдесят в месяц — и привет<sup>24</sup>)... Ну, будь здоров!<sup>25</sup>)

Лена: Миша, это ты серьёзно насчёт оплаты?

Миша: В каком смысле — серьёзно?

Лена: Что у нас введут такую систему.

Миша: Ну, конечно же, нет! Это я просто хотел пошутить Колю. А вообще-то некоторым такая система пошла бы на пользу<sup>26</sup>).





## Телефонный юмор

Студент звонит профессору.

Студент: Добрый день, Иван Николаевич, я звоню Вам по просьбе Андрея Симонова.

Профессор: Я Вас слушаю<sup>27)</sup> . . .

Студент: Дело в том, что он заболел и поэтому не сможет прийти на экзамен.

Профессор: Очень жаль. А скажите, с кем я говорю?

Студент: Это говорит мой сосед по общежитию.

\* \* \*

Профессор Никольский, изобретатель в области электроники, страдал рассеянностью. Для того, чтобы хоть как-то исправить это положение, он каждое утро диктовал магнитофону свой распорядок дня, затем подключал магнитофон к телефону с тем, чтобы тот отвечал

на все звонки. Однажды профессор позвонил себе домой. В трубке раздался знакомый голос:

— Профессор Никольский будет дома в половине шестого.

Профессор посмотрел на свои часы: они показывали седьмой час.

— Старый чёрт,<sup>28)</sup> — проворчал он, — вечно опаздывает!

\* \* \*

В России очень любят телефонные розыгрыши<sup>29)</sup>. Вот один, который наверняка способен довести кого угодно до бешенства.

Начиная с шести часов вечера и до девяти с перерывами в 15–20 минут звонят объекту розыгрыша и разными голосами просят, например, Колю. Заранее известно, что никакого Коли там нет и в помине. С девяти до одиннадцати никаких звонков нет — на том конце провода<sup>30)</sup> постепенно успокаиваются. Ровно в одиннадцать снова набирается номер. Текст следует такой:

— Алло<sup>31)</sup> . . . Это говорит Коля. Мне случайно никто не звонил?

## НЕКОТОРЫЕ УСТОЙЧИВЫЕ ИДИОМАТИЧЕСКИЕ ВЫРАЖЕНИЯ, СВЯЗАННЫЕ С ТЕЛЕФОНОМ

Мне надо поговорить по телефону с . . . I want to phone . . .  
фону с . . .

Мне надо позвонить в . . . I want to make a call to . . .

Можно мне позвонить от вас?	May I use your phone?
Где здесь телефон?	Where's the phone?
Разменяйте мне мелочь для телефона.	I need some small change to make a phone call.
Сколько стоит разговор по телефону?	How much is a phone call?
Телефон работает?	Is the phone in order?
Как пользоваться этим телефоном?	How do I make a call from here?
Наберите мне этот номер . . .	Dial the number . . . for me, please.
* * *	
Алло! Это говорит . . .	Hello! This is . . .
Я хотел бы поговорить с . . .	I'd like to speak to . . .
— Он вышел.	He's out.
— Что ему передать?	Any message?
— Кто его спрашивает?	Who shall I say is calling?
Скажите, что звонил . . .	Please tell him that . . . called.
Попросите его позвонить по номеру . . .	Please ask him to ring . . .
Кто у телефона?	Who's speaking, please?
Повпросите к телефону . . .	Will you please call . . . to the phone.
Я вас плохо слышу.	Sorry, I can't hear you.
Говорите громче . . .	Speak louder, please.
Скажите по буквам.	Spell it, please.
Перезвоните, пожалуйста.	Dial again, please.

Не отходите от телефона.	Hold on, please.
Какой номер вашего телефона?	What's your phone number?
Это ваш служебный (домашний) телефон?	Is this your office (home) number?

\* \* \*

Дайте мне номер . . .	Operator, please give me . . .
Соедините меня с . . .	Operator, please connect me with . . .
Дайте мне справочную, пожалуйста . . .	Operator, enquiries, please . . .
Дайте добавочный . . .	Extension . . . please . . .
Вы меня неправильно соединили.	You gave me the wrong number.
Линия занята.	The line's engaged.
— Будете ждать?	Will you wait?
— Положите трубку.	Hang up, please.
— Не вешайте трубку.	Hold on.
— Подождите минутку.	Just a minute.
— Соединяю.	I'm putting you through.

### Explanatory Notes

- <sup>1</sup> To get through.
- <sup>2</sup> (Lit.) "To sit on the phone." Here, "she won't get off the phone", used conversationally. Not common. See note 3.
- <sup>3</sup> (Lit.) "To hang on to the phone." Both 2 and 3 are identical in meaning. Commonly used to denote a long telephone conversation.
- <sup>4</sup> (Lit.) "Do not boil." The equivalent of "keep your shirt on".
- <sup>5</sup> Similar to "patience, my friend, patience".
- <sup>6</sup> To dial a telephone number.
- <sup>7</sup> (Lit.) "To have a light hand", meaning "to have a lucky touch".
- <sup>8</sup> Get through.

- 9<sup>9</sup> Engaged signal.
- 10<sup>0</sup> Maybe something's wrong with the telephone?
- 11<sup>1</sup> That's a fine thing!
- 12<sup>2</sup> No luck anywhere.
- 13<sup>3</sup> Not funny a bit. This expression sounds very coy, especially when used by a girl or a young woman.
- 14<sup>4</sup> The construction « в связи с » is very formal and bureaucratic. In this context it has a humorous connotation.
- 15<sup>5</sup> (Lit.) "Zero without a stroke", meaning "less than nothing".
- 16<sup>6</sup> At last!
- 17<sup>7</sup> Did you forget to hang up? Nowadays people tend more often to say «положить трубку».
- 18<sup>8</sup> That idiot.
- 19<sup>9</sup> He's a fine one!
- 20<sup>0</sup> Old man. The same meaning as in English. Of recent coinage. Slightly over-used.
- 21<sup>1</sup> What about you?
- 22<sup>2</sup> Sevenish.
- 23<sup>3</sup> Idiomatic way of saying "to pay", "to go on paying".
- 24<sup>4</sup> И пръвет . . . and no more (sl.).
- 25<sup>5</sup> (Lit.) "Be healthy." One of the many ways of saying "good-bye". Very common.
- 26<sup>6</sup> "It would do them good." An old and very common idiom.
- 27<sup>7</sup> A standard way of answering the phone in Russian.
- 28<sup>8</sup> You old devil.
- 29<sup>9</sup> Practical jokes.
- 30<sup>0</sup> The other end of the line, the other party.
- 31<sup>1</sup> «Алло» (pronounced «алё») or "hello" is used in Russian when answering the phone. Also used to hail strangers in the street. As, for instance:  
«Алло, у вас не будет спички?»  
«Алло, такси!» (Here, taxi!)

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# IN NEXT MONTH'S SPUTNIK

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